

TOURNEFORT's
HISTORY
OF
PLANTS

Growing about PARIS,

With their Uses in PHYSICK;

AND

A Mechanical Account of the Operation
of MEDICINES.

Translated into *English*, with many ADDITIONS,

And accommodated to the

PLANTS growing in GREAT-BRITAIN.

By JOHN MARTYN, F. R. S.

In Two VOLUMES.

VOL. I.



LONDON:

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in St. Paul's Church-yard. 1732.



To the Right Honourable

ROBERT-JAMES,
Lord P E T R E,
Baron of *WRITTLE.*

MY LORD,



T is with some assurance that
I lay the following treatise
before you; the subject be-
ing BOTANY, and the author
M. TOURNEFORT. You have shewn
a more than common regard for this
Science, by bestowing on it that time,
which many of your age and quality
squander away on diversions, in which
thinking has no share. As a proof of
this,

DEDICATION.

this, give me leave to appeal to the taste which runs thro' your Lordship's Gardens; and particularly to that noble Stove which you have erected, far exceeding any I have yet seen, and, I believe, not to be equalled in the world. There your Lordship has the satisfaction of protecting the most tender plants, from the inclemencies of our northern air, and giving them, even those of the largest size, all the advantages of their own Summer in our hardest Winters. There I was agreeably surprized this last Summer, with the sight of some plants, at that time wholly new to me, which your Lordship first brought into *England*, and which you have as generously communicated for the publick benefit. I have now, thro' your Lordship's favour, the satisfaction of seeing them cultivated in my neighbourhood, by the skilful hand of my friend Mr. *Miller*; and shall take the first opportunity of describing and engraving them, that the publick may see how much they

DEDICATION.

they are indebted to your Lordship. My author is generally allowed to be one of the greatest Masters in BOTANY; and the place you have given his works in your library, is a proof that the general opinion is confirmed by your Lordship's judgment.

THE plants contained in this book are not remarkable for the distance of the country from whence they come; for they grow no farther off than the neighbourhood of *Paris*. Most of them are to be found also in *England*, as will appear by the notes which I have added: for I should not have presumed to trouble your Lordship with a naked translation, when you are so well acquainted with the original.

BUT, my Lord, if I have nothing here to offer that is new to yourself; yet I know it will be a pleasure to your Lordship, that others may have an opportunity of seeing your favourite

DEDICATION.

Science applied to the noblest uses.
Here they will find that the knowledge
of BOTANY is not merely speculative,
and that they often owe their lives to
those contemptible weeds on which
they daily trample. I am,

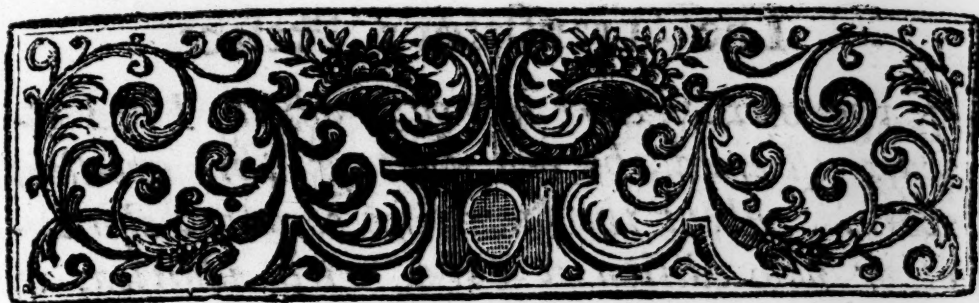
Your Lordship's

Most Obedient

Humble Servant,

*Chelfey, Sept. 30th
1731.*

John Martyn.



T H E

Translator's Preface.

THE following translation was begun twelve years ago, at the desire of my late ingenious friend Dr. Blair; who was so kind as to revise it, and give me his opinion concerning it in a very friendly manner. When it was almost ready for the press, I was informed that M. Vaillant intended to put out a new edition of the original: on which information I laid my design aside, being willing to see the emendations and additions, which should be made by so eminent a hand. After having waited about seven years, I had at last the pleasure of seeing the long-expected work come out, after the death of M. Vaillant himself, under the care of the two greatest Botanists of this age, my late learned friend Dr. William Sherard, and the celebrated Dr. Boerhaave. In this edition I found a great many new observations and descriptions, but was surprized when I saw that the accounts

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The Translator's Preface.

of the virtues were left out, which I had always esteemed the best part of this excellent work. About the same time came out also another new edition at Paris, with additions by the learned M. Bernard de Jussieu, predemonstrator of plants in the royal garden.

When I had considered these new editions, and observed that, as they were published by different persons, so the additions were as different, I thought that my translation would be more acceptable to the publick than ever; because I had an opportunity, by taking such observations either from M. Jussieu or M. Vailant, as I judged useful, to render the English translation more complete than either of the three French editions. Besides, I thought the book would be more agreeable to an English reader, if I should not only publish it in our own language, but by notes and observations convert it, in a manner, into an English book. In order to this, I altered the whole method of my author: for in the original the book was divided into six herborisations, according to the different places, to which M. Tournefort used to conduct his disciples. This disposition, I thought, could be of no use to an English reader; not to mention the inconvenience which it occasioned by going thro' the alphabet six different times.

I have added the English names to such plants as have any ascribed to them: and the places where they grow in England, partly from other books, partly from the discoveries of my friends,
and

The Translator's Preface.

and partly from my own observation. I have distinguished such additions as are inserted in my own words, by putting them in Italick characters; and the rest by quoting the name of the author from whom I have taken them. I have quoted Mr. Newton for many observations, which are already printed in the third edition of Ray's Synopsis: for which some perhaps may think me a plagiarist. But I must desire the favour of them to suspend their censure, till I have vindicated myself, by informing them, that those very observations were transcribed by myself from an obscure manuscript of Mr. Newton, and communicated to Dr. Dillenius, who extracted from my paper those notes, which were printed under Mr. Newton's name in the Synopsis.

I have disposed the mosses according to Dr. Dillenius's method, with very little alteration; and the mushrooms and capillaries after a new method of my own, which I may take an opportunity ere long of communicating more fully to the publick. I had probably made some difference, if I had seen M. Micheli's book sooner, but that did not come to my hands, till after my own was printed. I think I have nothing more to trouble my reader with at present, than,

An explanation of the abbreviated names quoted in this translation, and not in the original edition.

Act. Ac. Reg. Sc. Memoires de l'Academie Royale des Science. Paris 4to.

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Agrostogr. Helvet. *Scheuchzeri Agrostographia Helvetica* 4to.

Ambros. Phytol. *Hyacinthi Ambrosini Phytologia*. In fol. Bonon. 1666.

Ban. *Joannis Banisteri Plantarum in Virginia observatarum Catalogus apud Raii Supp.* 1704.

Barr. Icon. *Plantae per Galliam, Hispaniam & Italiam observatae a Jacobo Barrellier, editae ab Antonio de Jussieu*. Paris 1714. in folio.

Boc. Mus. *Museo di Fisica di Piante, &c. di Paulo Bocconi*. 2 Vol 4to. Venet. 1697.

Boer. Ind. *Index Plantarum, quae in Horto Lugduno-Batavo aluntur, conscriptus ab Hermann Boerhaave*, 4to.

Breyn. Cent. *Jacobi Breynii Exoticarum Centuriae, fol. Gedani* 1678.

Cat. Cant. *Catalogus Plantarum circa Cantabrigiam nascentium*. Cantab. 1660.

Cat. Cant. App. *Appendix ad Catalogum praedictum*. Edit. alt. Cantab. 1685.

Cat. Gifs. See *Dillen*.

Cimel. Reg. *Cimelium Regium*.

Comm. Ac. Reg. Paris. *Commentarii ad Historiam Plantarum ordinandam, Auctore Dodart, fol. & 8vo*.

Cat. Hort. Amstel. *Caspari Commelini Horti Medici Amstelaedamensis Plantarum usualium Catalogus*. Amst. 1715.

Dillen. Cat. Gifs. *Joannis Jacobi Dilleni Catalogus Plantarum sponte circa Gissam nascentium*. Franc. ad Maen. 1719. 8vo.

Dillen.

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Dillen. App. *Appendix ad Catalogum praedictum.*

Dillen. Nov. Plant. Gen. *Ejusdem Nova Plantarum Genera.* Ibid.

Eph. Nat. Cur. *Ephemerides Naturae Curiosorum.*

Flor. Bat. *Pauli Hermanni Florae Ludguno-Batavae Flores.* Lugd. Bat. 1690. 8vo.

Gundelsh. *Andreas Gundelsheimer apud Forenium in Hodego Botanico.* Franc.

Flor. Pruss. *Loesellii Flora Prussica.* Regiomonti 1703. 4to.

H. Paris. *Histoire de Plantes aux environs de Paris, per M. Tournefort.* Paris 1699. 8vo.

Hist. Plant. rar. *Historia Plantarum rariorum a nobis edita.*

Juss. New Edition of the Plants about Paris, by M. de Jussieu.

H. Ox. *Historiae Plantarum universalis Pars tertia Auctore Roberto Morison, post Auctoris Mortem a Jacobo Bobartio absoluta.* Ox. 1699.

Mont. *Catalogi stirpium Agri Bononiensis Prodromus, Gramina ac hujusmodi affinia complectens a Josepho Monti.* Bononiae 1719.

Munt. Hist. & Phytogr. *Muntingii Phytographia curiosa,* fol. Amst. 1711.

Petit Epit. *Lettre contenant une critique sur les trois especes de Chrysosplenium de M. Tournefort, trois nouveaux genres de plantes, & quelques nouvelles especes.* Namurci 1710 in 8vo.

Pet. Mus. *Jacobi Petiveri Museum.*

Pet. Concord. *Petiveri Concordia Graminum.*

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Pluk. Alm. Bot. *Leonardi Plukenetii Almagestum Botanicum. fol.*

Pluk. Mantifs. *Plukenetii Mantissa Almagesti Botanici fol. Lond. 1700.*

Pluk. Phytogr. *Ejusdem Phytographia fol. Lond. 1691, 1692.*

Ponted. Comp. *Julii Pontederæ Compendium Tabularum Botanicarum. 4to. Pataviae 1718.*

Prod. Bot. Par. *Sebastiani Vaillant Prodromus Botanici Parisiensis. 8vo. Lugd. Bat. 1723.*

R. Supp. *Joannis Raii Historiae Plantarum Tomus tertius qui est supplementum duorum præcedentium fol. Lond. 1704.*

R. Syn. Ed. 3. *Joannis Raii Synopsis Methodica stirpium Britannicarum. Editio tertia emendata & aucta a Joanne Jacobo Dillenio. 8vo. Lond. 1724.*

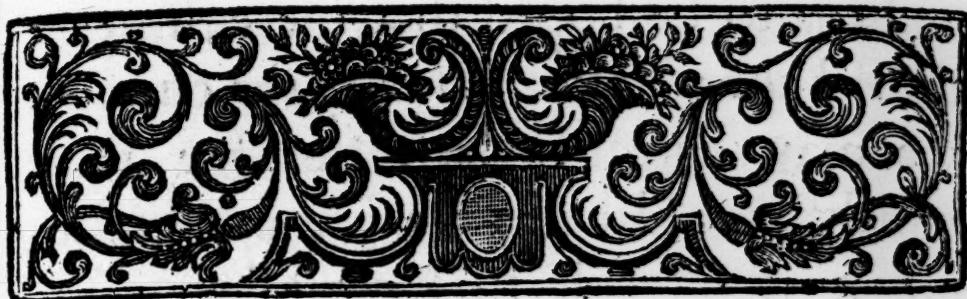
Riv. Ic. *Augusti Quirini Rivini Ordines Plantarum quæ sunt flore irregulari. fol. Lipsiæ 1690, 1691, 1699.*

Scheuchz. Agrost. *Agrostographia, sive Graminum, Juncorum, Cyperorum, Cyperoidum, iisque affinium Historia. Authore Joanne Scheuchzero, 4to. 1719.*

Scheuchz. Itin. Alp. *Scheuchzeri Itinera Alpina. 4to. Lugd. Bat. 1723.*

Syn. Stirp. Brit. & Synopf. See *Raii Syn.*

Vaill. *Botanicon Parisiense ou Denombrement par Ordre Alphabetique des Plantes, qui se trouvent aux environs de Paris, par feu M. Sebastien Vaillant. fol. Lugd. Bat. & Amst. 1727.*



THE
P R E F A C E.

EXPLAINING

*The Method followed in this WORK,
and the Manner in which Medicines
operate.*



THREE things are proposed in this work. *First*, To enumerate the plants that grow about *Paris*. *Secondly*, To criticise on the authors who have mentioned these plants, and whose descriptions are not conformable to nature. *Thirdly*, To select their virtues and uses which have been proposed by the ablest physicians.

IT is to be hoped that the enumeration of the plants will satisfy the curious: we may hereafter seek out for those which have hitherto escaped our notice; for it is difficult to have taken all at once, although we have confined ourselves within one day's walk about the city.

THE criticism will not only appear necessary to understand the authors, but also to know perfectly the plants of which they have treated. For we must either use the books we have, or begin a general history of plants altogether new: and one cannot with prudence forsake the works of so many learned men, who have applied themselves to Botany. It is therefore necessary to be warned of their errors: this we have endeavoured to do without detracting from their merit: and if we have not praised them in every thing they have done well, it was because we must have praised them too often. *Columna, Gesner, Caesalpinus, Clusius, Dodonaeus, Lobel, the Baubins, and Morison,* ought

ought to be regarded as the great masters of Botany; but as they did not know perfectly all the plants of which they have treated, it is no wonder that they were sometimes mistaken.

As for the virtues of the plants, we thought it best to keep to the most certain and best known: I have added besides several properties which experience or conversation with the most skilful physicians, which I have met with in my travels, has taught me; but we must not always judge of the goodness of remedies by their success. We must make choice of such as have succeeded as often as they have failed: whenever they fail, it is to be considered whether the patient was in a curable condition; whether the principal parts of the body were capable of being repaired; or whether the remedies were taken seasonably; for it is very requisite that the persons concerned in the administration of medicines should be expert: the best medicines of all will

often become poison in the hands of the ignorant.

In the use of the plants, we have thought that the singular preparations are not to be rejected; and at the same time have been persuaded that we should not neglect the most common. We often spoil all by too much refinement; the mixtures of extracts, of quintessences, of elixirs, of spirits, of ethereal oils, make new compositions which have not so much efficacy as those which nature has produced. She has regulated more wisely than we the dose of the principles of every mixt body; therefore the most natural and simple medicines, ought to be preferred to the most laboured and compounded, except the excellence of these has been confirmed by a very great number of experiments.

The over great simplicity of certain medicines is not always so very advantageous as one may imagine; some would have only the soul, if I may say so, of mixtures. But it is often found that the grossest act most efficaciously:

P R E F A C E.

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cioufly : a good instance of which we have in the Jesuit's-bark. We cannot cure, I think, abundance of diseases with the medicines thus refined : those which they call pure alkalies, pure acids, pure sulphurs, have not any extraordinary virtues. Sometimes we are, without reason, afraid of destroying the alkali by the mixture of acids, but we find by experience, that these scruples are ill grounded, for the salt of tartar, more than saturated with distilled vinegar; and salt of wormwood, over-charged with juice of lemon; are, at least, as proper for the diseases of the stomach, as those salts themselves reverberated with care. Specificks are naturally very compound, and all the art of man has not yet produced any thing so certain, as two or three drugs which the *Savages* find in their woods. Therefore experience must be the only judge in the goodness of remedies, even those which strike our senses the most strongly, are not always the most excellent.

The Bark and Ipecacuanha have no smell, Mercury and Antimony have neither smell nor taste.

Nothing is so opposite to the true practice of physick, as those pretended ideas of heat, cold and fermentation, in favour of which both physician and patient are often very much prejudiced. We dare not, say they, give a ptisan made of certain plants for fear of overheating. We must not purge the patient for fear of irritating the cause of the disease; as if it were possible to empty a sack without shaking it, or if the humours could be restor'd without any motion to disturb them, and procure a separation of that matter which had first alter'd their texture.

In the necessity which we have of speaking of what is most active in plants, it has not been thought necessary to recur either to the configuration of the parts, or to the first qualities of the bodies, for we cannot determine the figure of those parts: and what have hitherto been called first qualities, are
found

found properly only in the mind of men: we have endeavoured to compare that which seems to act in plants, to certain other bodies, whose nature and properties are principally known to physicians.

As there is nothing that is not very much compounded in plants, we have not confined our selves only to alkalies and acids; but have rather had regard to those salts which result from this mixture, and produce salts like those which are familiar to us. On the other hand, we must not contemn what they call sulphur, earth, and water. For although it may be allowed possible to reduce all those principles into a less number; yet in all appearance they rather act according to their proper structure, than those of which they may be composed. So that we must not be surprized, if, in this work, there be found salts of certain plants like *sal ammoniac*, alum, or vitriolated tartar, or salt of Coral, or the *Terra foliata tartari Mulleri*, to the *Oxysal Diaphoreticum Angeli Salae*:
a 4 that

that all these salts are wrapped up in a certain quantity of sulphur and earth, that the whole is dissolved in a portion of phlegm : for beside acquainting us with the analogy between principles of certain plants, and those of the bodies, with which we have compared them ; it cannot be doubted, but in plants there must be both salt, sulphur, earth and water, which by their mixture are capable of forming an infinite number of other bodies. Water makes much the greatest part of the sap of plants : their juice crystallized, yields a salt : the oils and rosins are nothing but sulphur : putrified plants become dung, which being deprived of their salt, leaves nothing but an insipid earth : all these bodies pass from the roots of plants even to the extremities of the branches ; and in their passages the structure of the strainers they meet with, causes the production of an infinite number of bodies very different, and very opposite to one another.

Before

Before I descend to the particulars of all these things, it is proper to define certain words which we shall use hereafter; and to tell you the rules which we have followed to discover the character of the things which they signify.

1. By the chymical analysis of plants, is meant the separation of their principles, by means of fire and proper vessels: to which end we distil fresh plants in an Alembick, or in *Balneo Mariae*; or before you proceed to distill them, they are to macerate or digest for some time, according to the nature of the plants or the intention that you have: it is proper to separate the substances which are obtained from it into portions of four or six ounces, the better to examine separately their characters. You commonly draw off by this means the phlegm, the spiritous water, or the burning spirit of plants: when the distillation is ended, you put the *residuum* into a retort, and giving fire by degrees, you draw off from the generality of
of

of plants an urinous spirit, a volatile concrete salt, and a fetid oil.

From the *Caput Mortuum* lixiviated, we separate by filtration and evaporation the salt that was mixed with the earth.

2. By acid and alkaline salts, are meant those two kinds of salt, to which the physicians and modern chymists have given these names: it seems more easy to understand than define them.

3. By essential salt, is meant that which forms itself by the crystallization of the juice of plants: we find this essential salt in the extracts of such whose juice does not crystallize.

4. By the volatile salt of plants, is meant the salt which in the distillation of plants by the retort, sticks to the sides of the receiver.

5. By the fixed salt of plants, is meant the salt which is made by elixivation of the ashes of plants burnt, or from the *Caput Mortuum* of those which are analysed.

6. To

6. To discover the acids, we have not only made use of salt of tartar, lime-water, spirit of *sal ammoniac*, and with such like substances with which acids generally ferment; we use likewise the solution of turnsole or blue paper, which is nothing else but common paper, coloured with turnsole dissolved in common water: the alkaline salts make no change on the turnsole: the acids, according to their strength, redden it by degrees, from a very faint red to a very lively one: you'll meet with the turnsole commonly at the Colour-shops; they are little cubes of a deep violet-colour, and give a blue tincture, but it is a colour the most susceptible of alteration that I have yet found, for the weakest acid will change it: milk is also sometimes made use of to try if certain acids will curdle it.

7. To discover the alkaline salts, we have used not only the spirit of nitre, of salt, of sulphur, of vitriol, and other acids, with which the alkalies commonly ferment; but also of corrosive

five sublimate dissolved in common water: the acids do not at all change the colour of this solution; but it becomes obscure, milky, yellow-orange-coloured: it curdles according to the strength of the alkaline salts: these salts also change white, green, or curdle the solution of galls and that of copperas; but these two last experiments are not so certain as those of the sublimate; for there are some acids as we shall see hereafter, that change also the solution of copperas, and the infusion of galls.

8. As the *sal ammoniac* discovers itself by it's volatile or urinous salt, oil of tartar, or lime-water, has been used to discover whether there be any *sal ammoniac* in certain plants, for then they emit an urinous spirit, like that which exhales from urine or *sal ammoniac*, when they are mixed with oil of tartar or lime-water: lime-water and corrosive sublimate combined in a certain manner, with a solution of *sal ammoniac*, distinguish also the nature of the *sal ammoniac*; for the solution of
this

this salt, mixed with lime-water, hinders it's becoming yellow or red-orange; when we pour on the solution of sublimate corrosive, the whole becomes white as milk; on the contrary, lime-water, mixed with the solution of sublimate, turns yellow or red as before, although it is joined to that of *sal ammoniac*. Thus as the urinous salt of plants is not altogether without acid, I believe it is better to say, that a plant acts by a salt approaching to *sal ammoniac*, than by a pure volatile salt, and so much the more, because the plants which yield a concrete volatile salt, redden the blue paper in like manner as the *sal ammoniac* does those, except where a great quantity of oil smothers the acid, and hinders it's appearance.

9. As nitre discovers it self by detonation, I believe the best means to know nitrous substances certainly, is to throw them upon burning coals.

10. Every body knows that the most remarkable property of vitriol is to blacken the infusion of galls; therefore
we

we ought to mix the bodies which we examine with this infusion.

11. To know whether there be sulphur in any particular body, it seems to be the best way to put it in digestion in good spirit of wine, to see if it draws any tincture: the readiness which these bodies have to catch fire is also an indication of sulphur. The dry *Elatarium* burns at a Candle, the extract of *Sedum majus vulgare*, C. B. does not burn at all; therefore the first contains a resinous matter, which we don't find in the other. The oily substances become soapy when they are mixed with lime-water or oil of tartar.

The following experiments may serve to shew the nature of that salt which we can draw from the earth without the help of fire.

Take plaster into a low place, where there has not been any chimney; pound it, and put it into a pail of water, covering it half a foot: after an infusion of four days, if the water does not afford any sign of saltiness, and does not
change

change it at all by the forementioned experiments, let it be put again upon fresh plaster taken from the same place.

The second infusion grows a little reddish, acrid, saline and bitter.

1. It made but a faint impression of violet upon the blue paper.

2. It did not curdle milk at all.

3. It did not receive any change from spirit of nitre.

4. It made the infusion of galls muddy, and rendred it whitish: afterwards it made a pretty thick *coagulum*, followed with a precipitation.

5. When it was mixed with infusion of vitriol it became a dark, tawny colour.

6. It rendred obscure a solution of sublimate corrosive.

7. The same infusion, mixed with oil of tartar instantly, made a white *coagulum*; immediately after was perceived a very considerable urinous spirit. Mixed with lime-water it did the very same, without finding in either of these experiments either effervescence or heat.

8. Sub-

8. Substituted in the room of *sal ammoniac*, it whitened lime-water when it was added to the solution of corrosive sublimate: this white was not so lively as that which appeared by means of the solution of *sal ammoniac*.

It appears by the 4th, 5th, and 6th experiment, that the infusion of plaster contained an alkaline salt; and by the 7th and 8th that it contained *sal ammoniac*. The first discovered some acid in the same salt: this seems to be scattered through the whole, for when they whiten old houses with lime, one may perceive an urinous smell for a day or two.

Beside the *sal ammoniac*, the infusion of plaster evaporated, yields nitre, which discovers itself by detonation: it is separated also from a marine salt.

The infusion of earth scraped from the high roofs of vaults, is found to be of the same nature with that of plaster: the infusions used by the salt-petre makers of *Paris*, contain a fixt salt, because they put a certain quantity of
ashes

ashes in the bottom of their bucking tubs, in order to purify the salt-petre.

Beside the infusion of plaster, I made others with earth of different natures. To twenty-five quarts of water, I put to infuse twenty pounds of mould from a garden which had been neglected for many years; after four days infusion, I passed it through a strainer of hair cloth, and poured the infusion again upon fresh earth. The first and second infusion did not undergo any change with the common trials, it was put again upon another portion of earth; I designed to have made still more infusions, but the thing was hardly possible, because the earth had consumed a great deal of the water, notwithstanding the precaution used to filter it.

This last infusion of the earth was a little reddish, salt and bitter, being half evaporated, it became like that of plaster.

The infusion of earth taken from a piece of ground not dunged; that of kitchen-garden earth and mould afford-

ed nearly the same characters as that of plaster; except that these last earths sent forth a urinous spirit more penetrating than that of the first: besides, the infusion of all these earths whitened the solution of corrosive sublimate, a great deal more than the infusion of plaster.

The *natrum* or *anatron* of *Ægypt* made the same alteration upon the solution of sublimate; and as in the *Levant* we find this salt naturally in the ground, it is no wonder that it should have some similitude with the infusion of that of this country.

The *natrum* seems to be nothing else but a marine salt, mixed with a natural alkaline salt: these salts are not perfectly united together; for if you go to steep a piece of *natrum* in water, it dissolves at first only that which makes the least resistance, and that part being dissolved, you may see in that which remains, a great many cavities something like those of sponges.

Natrum has the taste of marine salt and crackles in the fire, it makes no
more

more impresson upon blue paper than marine salt; it does not at all ferment with spirit of *sal ammoniac*; it makes a white *coagulum* with the infusion of galls: mixed with lime-water, it does not hinder it's turning yellow when mixed with a solution of sublimate, the marine salt does the same: it ferments considerably with spirit of nitre, which the marine salt does not.

The solution of *natrum* renders that of copperas of a very dirty green, like sea-green: this change seems to indicate an alkaline salt, since it comes to the same when mixed with oil of tartar or lime-water, with a solution of copperas; and this sea-green is wholly destroyed by the mixture of spirit of nitre, which uniting it self with the oil of tartar, causes it to part with the copperas.

Upon these experiments we have related touching the infusion of plaster, and of the different sorts of earth, we may reasonably advance,

1. That there is in all earth, what we may call a natural salt, whether the

earth has always been impregnated with it, or it is continually made by the mixture of rotten plants, the dung of animals, the air, or other causes which we are ignorant of: this salt participates of nitre, of marine salt or *sal ammoniac*, of *alum*, and of *vitriol*.

2. That in the salt of the earth, there is an *alkaline salt*, different from the *sal ammoniac*; for the infusion of various earths, and the solution of *natrum*, whitens the solution of sublimate corrosive, which the solution of *sal ammoniac* will not do; on the other hand, the *natrum* ferments considerably with spirit of nitre, and the infusion of earth boiled a little with the same spirit, which we do not find when we mix the solution of *sal ammoniac* with spirit of *nitre*.

3. It appears also that the bodies which we draw from earth, without the help of fire, afford us but small sign of acid, except *alum* and *vitriol*: the following observations are relating to common salts.

1. *Nitre*

I.

1. *Nitre* makes no impression upon the blue paper, nor upon solution of *turnsole*, nor upon syrup of *violets*.

2. One cannot draw a spirit of *nitre* without a very violent fire: this spirit reddens very lively the blue paper, solution of *turnsole* and syrup of *violets*.

3. *Nitre* inflames upon the fire, and kindles readily: the spirit of *nitre* extinguishes it.

4. It does not curdle milk: the spirit of *nitre* curdles it instantly.

5. It does not change the colour of *oxes gall*: the spirit of *nitre* makes it red; I suppose by the uniting it self with the acrid salts, which had perhaps contributed to yellow the sulphur of the blood, it is a means of making this liquor return to it's natural colour.

6. It makes a white or greyish *coagulum* with infusion of galls: the spirit of *nitre* does not alter this infusion.

7. Neither *nitre* nor it's spirit do alter the solution of copperas.

8. *Nitre* and oil of *tartar* make an almost insensible ebullition, wherein there appears to be an agitation of the parts like those of dust, which you may see move about the air in a very light place : the spirit of *nitre* and oil of *tartar* ferment without heat, but with a great froth, and afterwards it becomes a very thick *coagulum*.

9. *Nitre* does not hinder lime-water becoming yellow when mixed with the solution of sublimate : the spirit of *nitre* only raises a few bubbles in the lime-water, all appearing as transparent as before, although the sublimate corrosive be poured upon it.

10. The solution of *nitre* and the spirit of *sal ammoniac* do nothing at all : the spirit of *nitre* and spirit of *sal ammoniac* do ferment with a considerable quantity.

11. The solution of *nitre* and that of corrosive *sublimate* do not immediately change ; but about a quarter of an

an hour after they are mixed they become white.

12. The solution of *nitre* and spirit of salt do not change at all. None of these experiments discover any signs of acidity in the *nitre*; for that which happens in the 9th is insensible; the 6th and 11th rather shew that it contains an alkaline salt: nevertheless fire draws from nitre one of the strongest acids that we know.

II.

1. The marine salt does not alter the blue paper, nor solution of turnsole, nor syrup of violets.

2. One cannot draw the spirit of salt without a violent fire; this spirit tinges blue paper and the solution of turnsole of a lively red.

3. The solution of marine salt whitens a little the solution of sublimate.

4. It muddies the infusion of galls, and afterwards occasions it to precipitate a little; the spirit of salt muddies it also and renders it whitish.

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5. It

5. It makes the spirit of *sal ammoniac* obscure, and increases the strong smell: the spirit of salt and that of *sal ammoniac* ferment with smoak and great heat.

6. It does nothing at all with oil of tartar, nor with lime-water: spirit of salt ferments very much with oil of tartar, but without sensible heat: this spirit does not ferment at all with lime-water.

7. It does not hinder lime-water from turning yellow when mixed with sublimate: the spirit of salt hinders it entirely, and the liquor, after the mixture of sublimate, is more transparent than before.

It appears by the 3d and 4th experiment, that the marine salt contains an alkaline salt; and by the 5th that it is somewhat acid.

III.

1. The solution of copperas or common vitriol is saline, stiptick, afterwards sweetish,

2. It

2. It reddens the solution of turnsole and blue paper; but this is not a lively red.

3. It gives syrup of violets a small greenish cast, far from reddening it.

4. We cannot draw the spirit and oil of vitriol without an intense heat: the spirit and oil redden the syrup of violets the colour of ox's blood.

5. The spirit of vitriol colours blue paper of a very lively red, and the solution of turnsole of a red somewhat less lively: the oil does the same; but it ferments and grows hot with solution of turnsole.

6. Every body knows that copperas mixed with infusion of galls, makes ink; but every body perhaps does not know that ink reddens blue paper: mixed in a very little quantity with solution of turnsole, it gives it a little reddish cast, but this colour is less sensible than upon the blue paper.

7. The spirit of vitriol muddies and whitens a little the infusion of galls: the oil of vitriol thickens it, makes it
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of an ash-colour, and it makes a thick precipitation.

8. The solution of copperas, it's spirit and oil, curdle milk.

9. It does not change at all that of sublimate corrosive.

10. It becomes a grey-brown and like sea-green, mixed with oil of tartar or with lime-water: this colour does not change, although it be mixed with corrosive sublimate: spirit of vitriol and oil of tartar ferment with a great deal of froth, and a considerable heat; but all these augment, if instead of spirit you put the oil of vitriol, and all their mixtures become a white *coagulum*.

11. Common water and oil of vitriol grow also very hot, and generally make a noise; there is no fluid that more easily grows hot with the mixture of others, than the oil of vitriol.

It appears, by all these experiments, that vitriol naturally affords a great many signs of acidity.

IV.

1. Alum is a little saline and very stiptick.

2. The solution of alum tinges of a fiery red the blue paper and solution of turnsole.

3. It does not alter the colour of syrup of violets.

4. It curdles milk.

5. It instantly makes a white *coagulum* with oil of tartar, but without heat or smoak.

6. It does not alter the solution of sublimate.

7. It makes the infusion of galls muddy and whitens it considerably, throwing down a precipitation.

8. It whitens lime-water a little, and this mixture does not turn yellow when mixed with sublimate corrosive, but it forms little white clots like starch, this is perhaps occasioned by the urine which is employed in the crystallization of alum : so we cannot conclude any thing from

from all these experiments, except that alum contains a good deal of acid.

V.

1. The *sal ammoniac* is acrid and saline.
2. It's solution tinges blue paper of a dark red: it does not at first change the solution of turnsole, but a day after this mixture becomes a reddish brown.
3. It does not curdle milk.
4. It does not alter the solution of sublimate corrosive.
5. Mixed with oil of tartar, or with lime-water, it emits an urinous spirit.
6. This spirit coagulates and whitens the solution of sublimate; from *sal ammoniac* one may also draw an acid spirit, like the spirit of salt; thus the *sal ammoniac* appears to be a marine salt united with an urinous one.
7. The acid spirit of *sal ammoniac* hinders the lime-water's changing colour, when it is mixed with the solution of sublimate; but the whole mixture becomes white as milk, if you pour on the
the

the urinous spirit of this same salt, the *sal ammoniac* thus causing the same effect upon lime-water and sublimate, as it's urinous spirit does; it is certain that this is the urinous part, and not the acid part of this same salt, which whitens the lime-water, when mixed with solution of sublimate; urine whitens it more faintly than the solution of *sal ammoniac*.

8. The acid and urinous spirit of *sal ammoniac* ferments with heat.

9. If you pour the acid spirit of *sal ammoniac* upon lime-water tinctured by the sublimate corrosive, the whole becomes transparent; and all this becomes white as milk, if you add the urinous spirit of *sal ammoniac*; the spirits of salt, of vitriol, of sulphur, perform the same as the acid spirit of *sal ammoniac*.

VI.

1. Tartar, which is nothing else but the essential salt of wine, is sourish.

2. It's

2. It's solution reddens the blue paper and the solution of turnsole as lively as alum.

3. It whitens lime-water, but it does not hinder it's becoming a red-orange when mixed with the solution of corrosive sublimate.

4. It makes no change when mixed with corrosive sublimate, or with infusion of galls.

5. It does not change with spirit of *sal Ammoniac*.

6. Mixed with oil of tartar it does not receive any change.

7. The spirit of tartar contains a good deal of acid; it gives a lively red to the solution of turnsole, and renders the syrup of violets of a reddish brown.

8. It makes a *coagulum* with *oleum tartari per Deliquium*.

9. Mixed with lime-water it does not change colour; but if you pour upon the mixture a good deal of the solution of sublimate, the whole becomes whitish: thus it is probable, that beside the acid, this spirit contains an urinous part;

part; but it does not appear so strong as one would judge at first by it's smell.

10. Mixed with the urinous spirit of *sal ammoniac* it thickens, becomes whitish, and makes a thick *coagulum*.

11. It renders whitish the solution of corrosive sublimate, and makes a *coagulum*, the grumes of which are of the same colour.

12. It does nothing at all with the acid spirit of *sal ammoniac*.

13. The salt of tartar dry or dissolved into liquor, which is called oil of tartar, is acrid and very bitter; this bitterness does not go away but by the mixture of a great quantity of acid salt.

14. The oil of tartar and solution of corrosive sublimate, make an orange colour, which approaches more or less to a yellow, according as the one or the other of the liquors predominate, but the whole becomes transparent by the mixture of an acid corrosive spirit.

15. It does not give any considerable change to spirit of vinegar: one discovers only that kind of trembling, where
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some parts are stirred like the appearance of dust in the sun.

16. Oil of tartar and spirit of vinegar mixed, don't forbear turning yellow when mixed with solution of sublimate.

17. Oil of tartar ferments with the corrosive acid spirits.

18. Oil of tartar and acid corrosive spirits, don't forbear turning yellow when mixed with solution of sublimate.

19. Oil of tartar, and the urinous spirit of *sal ammoniac*, don't change when mixed; but the whole becomes thick and white as milk when you pour on the solution of sublimate.

20. Oil of tartar turns syrup of violets green.

21. Oil of tartar thickens the infusion of galls.

VII.

It is not necessary to repeat here what we have already said concerning lime-water; we will only remark,

1. That it becomes very white when mixed with oil of tartar, it makes a
very

very thick *coagulum*, which seems to indicate some acid in lime.

2. Mixed with the corrosive acids, it becomes more clear; the same also when mixed with distilled vinegar.

3. Mixed with the urinous spirit of *sal ammoniac* it turns white.

4. Mixed with a strong infusion of galls, it becomes thick, greyish, approaching to brown; and one may observe upon it's surface a black spot, like a drop of ink; thus lime-water seems to have something of vitriol.

One may see, by all these experiments, what affinity there is between the natural salt of the earth and the other salts whereof we have been speaking; but moreover that of the earth is wrapped up with a great deal of sulphur.

The mineral sulphur; bitumens, pitch, coal, jett, and petroleum, prove that the earth is not without a natural sulphur.

By the chymical analysis the pure earth, without dung or rubbish, yields a fetid oil, and an urinous spirit; the

remainder which you draw participates more of alkali than acid.

Garden mould well dried and sifted, gives spirit of wine a lemon-colour after five or six days infusion upon warm ashes.

1. This spirit of wine does not presently change the colour of solution of turnsole; but soon after it precipitates, and the remainder becomes grideline: common spirit makes the same precipitation, but the liquor remains blue.

2. It becomes pretty white and thick by the mixture of water; but some time after it becomes grumous, and precipitates in form of a yellowish rosin, all which does not happen to the common spirit of wine.

3. It becomes very white with solution of sublimate, and grows warm; this solution, mixed with common spirit of wine, grows warm also, but the whole remains clear.

4. It whitens likewise by the mixture of lime-water, and precipitates a resinous matter.

5. It

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5. It mixes but very indifferently with oil of tartar, and after these two liquors have been well shaken together, they become thick.

6. It occasions no change with urinous spirit of *sal ammoniac*, nor with the corrosive spirits, except that it heats them a little; but that is the same with the common spirit of wine.

7. It grows hot with lime-water, and hinders it's turning yellow with corrosive sublimate: these liquors make just such a dirty white, as you may observe when you mix urine with lime-water, and add sublimate to it: the common spirit of wine grows hot also with lime-water; but the whole becomes a red-orange when you pour on the solution of sublimate.

These experiments shew that there is a sulphur, an *alkaline salt* and *Sal ammoniac* in earth: sulphur even appears in the extract that remains after evaporation of the infusions of earth; for this

extract makes a kind of soap, very thick, when mixed with oil of tartar.

After all these experiments, we have made no great difficulty, *first*, to compare to *sal ammoniac*, those salts of plants, which, by a mixture of oil of tartar or lime-water, emit an urinous spirit; and which, by the *chymical analysis*, produce also a volatile crystallized salt; for it is probable that the volatile salt, is nothing but the urinous part of the *sal ammoniac* of the plant, which leaves it's acid parts by force of fire; thus, by the mixture of oil of tartar or lime-water, the urinous spirits appear to be nothing but part of the same volatile salt dissolved in phlegm, and the fetid oil is as much loaded with the same salt: we must not therefore wonder that these sorts of plants are aperitive, deterfive, febrifugous, vulnerary, and the like; for *sal ammoniac* has all these qualities.

It is proper to observe, that although the *sal ammoniac* seems to be but in very small quantity in infusion of earth,

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yet it is very considerable: for the urinous spirit, which by the mixture of oil of tartar separates itself from these infusions, is only a part of the *sal ammoniac*, and the white colour which the same infusion gave to the lime-water and corrosive sublimate, denotes that this part is very considerable; on the other hand, this salt is insensibly gathering several days in plants, and the quantity of volatile salt, which is obtained from four or five pounds of a plant, is commonly only from half a dram to six drams. Of all the parts of plants, the leaves are most fit to be loaded with *sal ammoniac*, for the roots, flowers, and fruit, retain more properly acids: the oil is commonly distributed in the seeds, and the phlegm diffuses itself through the whole plant.

2. Alum seems the most proper to explain the virtue of such plants as are stiptick, astringent, and which, by the chymical analysis, afford a great deal of acid and much earth; for these two parts must make a salt analagous to

alum : there are a great many of these sorts of plants, which also afford a little urinous spirit ; and this seems to denote, that besides the alum, there is some *sal ammoniac* in their composition.

3. Those which are aperitive, and from which a great deal of acid and earth is drawn, have perhaps a salt not much different from that of coral.

4. It is supposed that the plants which, beside the acid and earth, yield alkaline liquors, or signs of *sal alkali*; do contain a salt like to *tartarum vitriolatum*, or to that preparation of salt of tartar, which *Mullerus* and *Sennertus* have called *Terra foliata tartari*, or *Tartarum foliatum*. Sometimes we have compared the salt of these plants to that which *Angelus Sala* has named, *Oxysal diaphoreticum*; but all these salts, in the same manner as *sal ammoniac* are modified in plants by different portions of sulphur and phlegm.

To make the *terra foliata tartari Mulleri*, you must pour some distilled vinegar upon salt of tartar; distil this mixture,

mixture, pour fresh vinegar upon the salt, and repeat this operation till such time as the spirit of the vinegar be drawn off as strong as it was before the mixture: the remaining part of the salt of tartar is impregnated with the acid as much as it will bear: afterwards dissolve it in liquor which is filtered off; this liquor is acrid, saline, stomachick, proper for the cachexy, for the dropsy, and such like diseases.

The *Oxysal diaphoreticum Angel* *Salae* does not differ much from this preparation. *Angelus Sala* made use of *Carduus Benedictus*, upon which he poured good spirit of vinegar till such time as the sharp taste prevailed; after which he dried it over a gentle fire, then set it to digest for eight days in rose water; then dried it a second time, and so kept it for use.

5. It is probable, that in aromatick plants, as several skilful persons have proposed, there is something like that chymical preparation, which is called the volatile, aromatick, oily salt,

or oily, volatile, aromatic spirit: for both of them are drawn at the same time in the following manner.

In two pounds of good spirit of wine infuse, for eight days together, five drams of cinnamon, two and half of mace, as much nutmeg, a dram of cardamoms, two scruples of saffron and cloves, three drams of lemon-peel and saffrafras bark, as much aniseed and carraways; all these drugs must be powdered; the vessel wherein they are infused must be very well stopt and shaken twice a day; after eight days press out the infusion, pour it into a glass retort, with half a pound of salt of tartar very dry, well powdered, and mixed with four ounces of *sal ammoniac*: distil this mixture in a moderate sand heat, there will be drawn an aromack, oily spirit, and a great quantity of volatile, aromack and penetrating salt: for the urinous parts of the *sal ammoniac*, being opened by the salt of tartar, come over into the receiver with the spirit of wine, charged with the essential oil of the spices:

spices : this preparation has almost the same virtues with the aromack plants.

We commonly draw less concrete volatile salt from these sorts of plants, than the others : it seems that *sal ammoniac* dissolves it self in their texture ; and then the urinous parts being separated from the acid, and uniting it self to the essential oily parts, that little which remains of the concrete urinous salt does insensibly evaporate.

The different effects which the same plants often produce upon human bodies, require that we should say something of the manner of the operations of medicines, that we may not be surprized, if sometimes we ascribe virtues to the same plant which seem quite opposite.

The antients gave us a very good idea of medicines in general, when they divided them into evacuants and alterants ; the evacuants are those which sensibly empty the humours : the alterants change their texture, bring them to their natural state, and restore the parts :

parts: the evacuants empty the humours, either by the upper or lower parts, or by the surface of the skin: those which empty by the upper parts, cause vomiting, spitting, sneezing or salivating; those which empty by the lower parts, are purgative, diuretick, or proper to provoke the menses; in a word, the sudorificks act all over the skin.

M. *Chirac*, a very learned professor of physick at the university of *Montpellier*, was the first who asserted, that vomiting was rather caused by the extraordinary motions of the diaphragm and the muscles of the lower belly, than by the contractions of the stomach: the fibres whereof this part is composed are like so many springs, which expel downwards the bodies which they contain; and that is done with a greater force, whenever you encrease the action of those fibres; thus emeticks will become purgatives: if they augment the natural actions of the fibres of the stomach, they could not then but change them; but it is most certain,
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that this does not happen ; for the substance contained in this part cannot be emptied upwards but in three cases ; *1st*, when the motion of the fibres, which naturally thrust downwards, is reversed, as that may happen when there is any inflammation, or any considerable choaking : *2dly*, When there is a heap of matter that stops the passages : *3dly*, When the motion of the diaphragm and muscles of the lower belly is much more violent than ordinary. But in this vomiting, procured by a remedy, there is neither inflammation nor choaking in the first passages : they are not stopped by the lumps of hardened matter, therefore that which gets into these parts, is obliged to break out by the mouth, because of the violent motions of the diaphragm and muscles of the lower belly : we must look upon these parts as a kind of press, which flattens the intestines and stomach at the same time, which is the reason that it all overflows by the *Oesophagus*. No-body vomits who does not

not perceive the extraordinary motions of the muscles of the lower belly and diaphragm: one need only consider the dogs and cats that vomit, their belly seems manifestly to press down, and the diaphragm to drive the stomach towards the lower belly, like a door which we shut with violence.

M. *Chirac* demonstrates the action of these parts in a very sensible manner: having made a little opening in the side of the navel of a dog, who after he has swallowed corrosive sublimate, makes great efforts to vomit; he takes hold of the stomach of the dog with his hand, which he passes through the opening, and then observes that the stomach does not suffer any violence, but that the diaphragm and muscles of the lower belly contract very hastily, and, almost all at once, press with a great force the hand with which he holds the stomach.

Nature discharges herself oftentimes by the help of the neighbouring parts of the matter which offends another; in sneezing the organs of respiration

tion help to drive away that which tickles the nose; in yawning the irregular stretchings of the muscles facilitate the course of the blood, which does not pass quick enough from the arteries into the veins: all which happens rather by the impression which is made in the brain, by reason of foreign matter, than by the action of the part which suffers; for the disposition of our machine is such, that when any part is afflicted, the brain is, if I may so speak, informed of the disorder, and by a mechanism more easy to admire than explain, the spirits, agitated by the shaking which is made in that part, take such means as are proper to assist that which suffers.

It bears perhaps some resemblance to the impression which the emeticks make upon the brain; for the reflux of spirits towards that part, being as a necessary consequence of the pressures of the fibres of the stomach, made by reason of these medicines, the spirits shoot themselves into the neighbouring parts, and take the ways which lead to the diaphragm

phragm and muscles of the lower belly, which are the only parts capable of freeing the stomach readily of that with which it is charged.

Those who in vomiting, or afterwards, complain of being fatigued, and to have, as we say, the breast sore, shew you that the parts which suffer at that time are the organs of respiration, and 'tis for that reason that the most skilful physicians have prudently advised oftentimes to mix occasionally emeticks with purgatives, to avoid a part of the violent shock which emeticks give, and to determine the matter to get out both ways.

The antients were so prepossessed in favour of emeticks: that *Hippocrates* advised those who were in health, and pretty fat and fresh, to vomit three times a month; and twice, very often, to those who were more dry. The action of emeticks is nearly to the parts contained in the lower belly, like cloths that are beat by the fullers; the shocks of the diaphragm and muscles of
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the lower belly, are so many strokes of a stick which express and empty by the excretory vessels of the glands, all the extraneous matter in their texture. These expressions are as advantageous to those whose first passages are stuffed with filth, as they are hurtful to those who have *Schirri* or *Abscesses*: the schirrous parts are bruised; the abscesses oftentimes break; these diseases are sometimes relieved when they are in the lower belly; the patients are sometimes relieved by them when the abscesses are in the breast.

In this great heat of humours, called *Orgasm*, Emeticks given properly, remove by the shortest and most certain way, the matter of the greatest diseases: it is a much shorter way from the stomach to the mouth, than to the fundament, and this matter does not mix itself with the blood by the course of circulation. In these latter times *France* has not been exempt from the plague, but by the great care of her skilful physicians, for the patients who had not
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timely assistance, almost all died with the symptoms of a plague; and the plague would have made great ravages in the kingdom, if by bleeding, by ptisans, by diaphoreticks, we had not endeavoured to dissipate or reduce to concoction the humour which caused these diseases: hardly did it give place to Antimony, to Hellebore, to *Elate-rium*, to *Coloquintida*. This humour approaches to the nature of juice of lemons and barberries, which we cannot without trouble boil to the consistence of a syrup, and which, in spite of our boiling, easily return to their first acidity: the concocting of acid and viscid serosities, is very uncertain; in waiting for it, we sometimes lose the most precious moments, and oftentimes, far from being concocted, they dissolve and infect the mass of blood; two or three lines of *Hippocrates* ill-explained, have cost millions their lives. Since the revival of letters, the physicians of the greatest learning, and who valued themselves on understanding the doctrine
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of that great man well, have confined themselves to the least certain of his maxims, and have wholly neglected his *Materia Medica*. *Hippocrates* used the most violent evacuants upon occasions where he judged them necessary: the greatest part of his modern followers do not use above two or three gentle purges; the knowledge of which we owe to the *Arabians*, for whom nevertheless we shew much contempt; however, if the *Arabians* have not reasoned better than the *Greeks*, they were, at least, more rich in their *Materia Medica*.

The purgatives act principally in the stomach: it is probable they shake the fibres of that part, and dispose them to contract more strongly than ordinary, 'tis that which begins to empty the more gross matters: but as these fibres cannot contract themselves without pressing the glands which are in their spring, it is to be supposed that these parts are pressed with more force, that they empty more easily the serosity wherewith they

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are charged, and that they become more proper to filter it than they were before; 'tis by this mechanism, I think, that we must explain why the purgatives sooner evacuate the serosities thro' the glands of the first passages, than thro' those which are dispersed over the surface of the whole body: all those glands are perhaps intirely like two sponges that are applied to the extremities of the branches of a forked pipe, at the end of which one pours in water: it is very certain, that if these sponges are of the same bigness, and same texture, and that they receive the same quantity of water; that, however, which is pressed gently with the hand, pours out much more than that which is not pressed: thus the blood boiled more than ordinary by means of purgatives, discharges itself more easily of the serosities by the glands of the first passages, than by those of the other parts; and these serosities are as so many little springs, which commonly draw that which is the most ill-conditioned in the mass:
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in the action of purgatives, the blood cleanses all it's vessels and filters, and it's serosity carries off the excrements into the intestines, which are the common sink that the same purgatives have immediately swept.

The explication which we have made of purgatives, may be applied to remedies that occasion sneezing, and to those which discharge the *Sinus's* of the head of the too thick serosities, which gluing themselves against the pituitary membrane wherewith they are cloathed, hinder the common filtration, and cause light inflammations; this sort of medicines has the same effect upon the pituitary membrane as purgatives have upon the stomach; and consequently, the glands of the *Sinus's* of the head redouble their action, and secrete a great deal more of the serosity, than in their ordinary state.

The following experiment may serve to explain the action of other evacuants, alterants, and of those which are called specificks. If you pour water mixed
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with oil upon oiled paper, the oil only passes through that paper; on the contrary, if you pour those liquors upon wet paper, the water only passes, and the oil remains. Perhaps it may be the same with regard to the liver, the kidneys, the glands of the head, and all the rest; it can only be done in the formation of the bodies of animals; the liver may be found moistened with a liquor like bile: those liquors where-with the kidneys, the glands of the mouth, of the stomach, of the skin, were imbibed, were not perhaps much different from urine, spittle or sweat: it is therefore when the blood begins to circulate, it's sulphurs pass through the liver by mechanical necessity; spittle, urine and sweat filter themselves through the glands, moistened by such a like humour.

Those medicines which serve to the evacuations or re-establishment of the humours, do cause, by different springs which are made in the blood, a greater quantity of those humours; or else
separate

separate them from the other parts, and render them fitter to pass through their strainers: these humours are carried into those parts in a greater quantity, and with more ease; open and give room to re-instate themselves; if there be any obstructions in the biliary vessels, it cannot be that blood which is charged with particles of an aperitive medicine, which will open them, since the blood does not pass through those canals, 'tis the bile must open them, and to that end it must pass in greater quantity, or must be more fluid and more agitated than it was before: thus the virtue of hepatick medicines consists in augmenting the bile, in dissolving the sulphur of the blood, or rendering it more fluid and fitter to filter.

Diureticks charged with an acrid salt, produce, by dissolving the blood, a greater quantity of urine, or disentangle it from the blood, and render it more fluid; this urine passing in a greater quantity into it's strainer, clears, washes, and cleanses those canals through which

it passes; the other humours cannot do this; the diureticks charged with an acid, by never so little thickening the blood, give place to the urinous matter to separate itself in a greater quantity; from whence it follows, that it passes more abundantly thro' the kidneys; the diureticks charged with absorbents, produce the same effect, by imbibing the matters which retain the serosities in the blood.

Although the sweetners of the blood are excellent in many cases, they must not be regarded as specifics alone; for by mixing themselves with all the humours, they generally assuage the inflammation which is made in their strainers.

The sudorificks either augment the matter of sweat in the blood, or disengage it from the blood.

The chymical analysis shews that it is not very different from urine: hence the sudorificks often act by the glands of the kidneys; and as these glands are always in action, the greatest part of
sero-

serosities empty themselves that way, rather than by the glands of the skin, which is the cause, perhaps, that there are so few real sudorificks. One sweats however by labour, because the action of the muscles squeezes out the moisture from the glands of the skin, and renders them fitter to discharge their contents.

The medicines which provoke the *menfes*, either augment or disengage the serosity, which naturally moistens the glands of the *matrix*. It is not probable that this serosity gathers itself there in the space of about a month, for then it would empty itself there in the same proportion: it seems more probable, that it gathers itself in that time in the blood, that it puts it in motion when it is gathered there in a certain quantity, as is shewn by the symptoms which attend these evacuations. This serosity then, discharging itself pretty briskly upon these glands, makes them swell considerably, and this swelling is the cause that the arterial blood not

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being readily returned by the veins, which are too much pressed, is extravasated, and falls into the *matrix*.

The actions of *mercury* and *opium* depend on the same cause with the other medicines just now mentioned. *Mercury* seems to act on the blood in the same manner as small shot do on the whites of eggs, if put into a bottle and shook for some time; for by this means they are reduced into a very thin liquor. *Mercury* perhaps, by circulating with the blood, gives the lymph a degree of fluidity, not very different from that of the spittle; if so, this lymph must filtrate itself by the salival glands. Hence it comes, that those, who have taken *mercury*, soon begin to spit, tho' they are not troubled with the venereal disease. The continual flux, however, of the spittle causes a considerable swelling in its glands, attended with an inflammation and putrefaction, as it happens to all those parts, where the humours, thro' a defect of circulation, are obliged to extra-

extravasate. When mercury does not act by salivation, it oftner discharges itself by stool, than by urine or sweat, because of the affinity between the *saliva* and the serosity which passes thro' the glands of the intestines. But purgatives never salivate, because in their action, as was said above, the glands of the stomach and intestines are prepared at first by the purgatives themselves; whereas one ought to use frequent frictions or mastications, if one had a mind they should go off by sweat or salivation.

It is probable, that *opium* either produces in the blood, or disengages from it a lymph like that which causes natural sleep. Thus it makes one sleep, if given in a just dose, because it dissolves the blood, but just enough to produce that balmy rest, which in a manner locks up the spirits. But if it is taken in too great a quantity, it brings on a delirium, attended with convulsions, because

cause by gradually dissolving the blood, it produces serosities which disturb the spirits. After this the persons affected often die sleeping, because at last their brain imbibes too much of these serosities.

The causticks, by consuming the skin, make a new kind of filter, which can separate only serosities, because the proud flesh, which edges the hole made by the caustick, was at first impregnated with them. This application makes no hemorrhagy, because it cauterises the extremities of the vessels, as fast as it lays them open, and the serosities escape easily thro' the coats of the same vessels. An ill conditioned grain of salt, obstructing a gland, forms also a new filter in it, which is often the origine of a cancer, a tetter, or an incurable tumour. All that is impure in the blood, and analogous to the humour with which the filter is moistened, discharges itself thro' it insensibly; this humour flows back after-

afterwards into the blood, and kills the patient. If one extirpates the tumour, it often happens that the serosity, which filtered itself thro' it, produces new ones.

After all that has just now been said, it is proper to observe, that the virtues of medicines, as of all other bodies, vary according to the persons, and often according to certain dispositions in the same persons. We sometimes see emeticks purge, and purges vomit. Diureticks provoke sweat in some constitutions, and sudorificks provoke urine in others. Aperitives sometimes become astringent, and astringents laxative. In a word, the virtues of medicines are relative. There are some again, which seem very opposite, and yet produce sometimes the same effect: for instance, those which are called aperitives, by dividing and dissipating the matter, which causes the relaxation of the fibres, give them an opportunity of returning to their first state, by means of

of their natural spring: and yet the absorbents, by imbibing the serosities, produce the same effect. It seems besides that the fat earth acts by the contraction of it's own parts; for those which are branched, by contracting themselves, make it crack in several places when it dries. Or it may be, that, when these branched parts contract themselves, they may cross the fibres of the other parts, and approach to each other. These fibres cannot close without squeezing out the matter that occupies their pores; this squeezing disengages the part, and it's fibres recover their spring. The dose also contributes very much to the action of medicines: alum and vitriol, 'in a small dose, restringe; but, if given in a large dose, purge both upwards and downwards.

One may add again, that the greatest part of medicines act after a manner peculiar to themselves; for as they are naturally composed of different parts, they are capable also of making

king some singular alteration. What difference do we find amongst the emeticks? It is quite another thing to vomit with antimony, than to make use of Asarabacca, vitriol, alum, Ipecacuanha, or white Hellebore. Every one allows, that there is a choice to be made in purges, with regard both to the patients and diseases; Senna, Tamarind, Cassia, Aloes, Rhubarb, Coloquintida, Scammony, Manna, *Elatarium*, white Bryony and black Hellebore, act after different manners. Their difference is pretty much like that between a purging potion made with Cassia, Manna, and syrup of damask roses; and a bolus composed of *Crocus Martis*, Myrrh, *Mercurius dulcis*, salt of Wormwood, rosin of Jalap, and Scammony.

I must not forget to mention, at the close of this discourse, that the chymical analyses mentioned in this book, are extracted from the registers of the royal academy of sciences. The reader may be assured that they
have

have been made, with all possible exactness, by M. *Bourdelin*, who has been employed that way above five and twenty years. Messieurs *Marchant* furnished the plants on which the experiments were made; so that no mistake in these trials can be suspected. As for the other observations which I have advanced, and the inferences which I have drawn from them, I propose them only as conjectures, which I am ready to rectify on the information which such persons, as are best skilled in these affairs, shall be pleased hereafter to give me.





A N
E X P L A N A T I O N
O F T H E

Abbreviated Names of Authors quoted
by M. Tournefort.

A D V. *Adversaria nova stirpium, autoribus Petro Pena & Mathia de Lobel medicis.* This book was printed at London in 1570. at Antwerp in 1576. and reprinted at London in 1605.

Adv. part. 2. *Adversariorum pars altera.* This second part of the memoirs of Pena and Lobel was printed at London in 1605. with the last edition of the first part, in folio.

Ang. *Anguillara. Sempleci dell eccellente M. Luigi Anguillara.* In Venegia 1561. in octavo.

Antoine Constantin, physician of Aix in Provence, caused to be printed at Lyons, by Thibaut Ancelin in 1597. *la Pharmacie Provençal*, in octavo. In which he shews, that one may practise physick with the medicines that are found in each province, without being obliged to seek them elsewhere.

Boc. *Icones & descriptiones rariorum plantarum. Autore Paulo Boccone Panormitano, Siculo.* Oxonii 1674. in quarto.

Bot. Monsp. *Botanicum Monspeliense*, in octavo. Lugduni 1676.

Bot.

Ixiv *Explanation of abbreviated Names.*

Bot. Monsp. app. *Appendix Botanici Monspeliensis*. This was printed at *Montpelier* in 1686.

Brofs. *Brossaeus*. Description du jardin royal des plantes medicinales, par Guy de la Brosse medecin ordinaire du roy, & intendant du dit jardin 1636. in quarto.

Cam. epit. *Camerarius in horto Medico & Philosophico edito Francofurti ad Maenum* 1588. in quarto.

Caes. or Caesalp. *Caesalpinus : De plantis Libri xvi. Andreae Caesalpini Aretini. Florentiae* 1583. in quarto. The appendix was printed at *Rome* in 1603. in quarto.

C. B. Pin. *Caspari Baubini Pinax Theatri Botanici*. This work was printed at *Basil* in 1623. and reprinted at the same place, with some alterations in 1671. in quarto.

C. B. Theat. *Theatri Botanici C. Baubini liber I. editus cura J. C. Baubini Basileae*, in folio 1658.

C. B. Prodr. *C. Baubini Prodromus Theatri Botanici, Basileae*, in quarto.

C. B. Math. *C. Baubin's Edition of the works of Mathiolus*, at *Basil*, in folio.

C. B. Animad. in Lugd. *C. Baubini Animadversiones in Historiam generalem Lugdunensium. Francofurti* 1600. in quarto.

Clus. Hist. *Caroli Clusii Atrebatensis rariorum plantarum historia. Antverpiae* 1601. in folio.

Col. Phytob. *Fabii Columnae Phytobasanos Neapoli* 1592. in quarto.

Col. part. 1. *Fabii Columnae Lyncaeius minus cognitarum stirpium Ecphrasis. Romae* 1606.

Col. part. alt. *Fabii Columnae Lyncaeius minus cognitarum stirpium Pars altera. Romae* 1616.

Cord. Hist. *Valerii Cordi Historiae stirpium liber iv. Argentinae* 1561. cura Gesneri editi, in folio.

An Explanation of abbreviated Names. 1xv

Dod. Pempt. Remberti Dodonaei Mechliniensis medici Caesarei stirpium Historiae Pemptades sex, sive libri xxx. Antverpiae 1616. in folio.

Dod. Purg. Remberti Dodonaei purgantium historiae libri iv. Antverpiae 1574. in octavo.

Dod. Gal. The history of plants composed in Dutch by Dodoëns or Dodonaëus, and translated into French by Clusius or Charles de l'Ecluse, in folio, at Antwerp. 1557.

Eyft. Basili Besleri Horti Eystettensis descriptio. Norimbergae 1613. in folio.

Fuchf. Fuchs. De historia stirpium commentarii insignes. Authore Leonardo Fuchsio. Basileae 1542. in folio.

Ger. emac. Gerardus emaculatus. John Gerard's history of plants, corrected by Thomas Johnson. At London in 1636. in folio.

Gesn. hort. Gesnerus de hortis Germaniae. This Treatise is at the End of Cordus's History of Plants.

Gesn. Epist. Epistolarum Medicinalium Conradi Gesneri Philosophi & Medici Tigurini Libri III. Tiguri 1577. in 4to.

Hort. Edinb. Hortus medicus Edinburgensis; sive Catalogus Plantarum horti medici Edinburgensis. Authore Jacobo Sutherland. Edinburgi 1683. in 8vo.

H. L. Bat. Horti Academici Lugduno-Batavi Catalogus, Authore Paulo Hermann, Medicinae & Botanices Professore. Lugduni Batavorum 1687. in 8vo.

H. R. Blef. Mor. Hortus Regius Blesensis auctus. Auctore Roberto Morifono, Londini 1669. in 8vo. It is often cited under the Name of *Praeludia Botanica Morifoni*.

H. R. Monsp. Hortus Regius Monspeliensis a Petro Magnol Professore regio Monspelii 1697. in 8vo.

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H. R. Par. *Hortus regius Parisiensis.* Parisiis 1665.

H. R. Par. App. *Appendix Horti regii Parisiensis.*

J. B. 1. 238. *Johannes Baubinus Tom. 1. pag. 238.*

J. B. 2. 46. *Johannes Baubinus Tom. 2. pag. 46.*

J. B. 3. part. alt. 16. *Johannes Baubinus part. alt. pag. 16.*

J. B. 3. app. 871. *Johannes Baubinus Tom. 3. in appendice pag. 871.*

Inst. *Institutiones Rei herbariae.* This Work was in the Press at the same Time with the *Plants about Paris.* It is our Author's *Elemens de Botanique*, translated into *Latin* by himself, with large Additions. Parisiis 1700. 3. Tom. 4to.

Joncq. Hort. *Dionysii Joncquet Medici Parisiensis hortus.* Parisiis 1659. in 4to.

Lob. Icon. *Mathiae Lobelii Plantarum seu stirpium Icones.* Antverpiae 1581. in longa forma.

Lob. Illustr. *Mathiae Lobelii stirpium Illustrationes, accurate Gul. How.* Londini 1655. in 4to.

Lob. Obs. *Lobelii Observationes Plantarum seu stirpium Historia Mathiae de Lobel Insulani Antverpiae 1576. in folio.*

Lon. *Adami Loniceri naturalis Historiae opus novum Francofurti 1550. in folio.*

Lugd. *Historia generalis Plantarum.* Lugduni apud Guillelmum Rovillum 1586. in folio.

Math. *Petri Andreae Mathioli Senensis Medici Commentarii in sex libros Pedacii Dioscoridis, &c.* Venetiis ex officina Valgrifiana 1565.

Mentz. *Index nominum Plantarum multilinguis Opera Christiani Mentzelii, Berolini 1682. in folio.*

Mor. Hist. *Plantarum Historiae universalis Oxoniensis Pars secunda, Authore Roberto Morison.* Oxonii 1680. in fol. Mor.

An Explanation of abbreviated Names. lxxvii

Mor. H. R. Bles. see H. R. Bles.

Mor. umb. *Plantarum umbelliferarum Distributio nova.* Auctore Roberto Morison Oxonii 1672. in fol.

Park. Theat. Parkinson's *Theatrum Botanicum.* Printed at London 1629. in fol.

Plot. The natural Histories of Oxfordshire and Staffordshire, by Dr. Plot.

Pon. Bald. Ital. *Pona in editione Italica Montis Baldi.* Venetiis 1677.

Raii Hist. Joannis Raii *Historia Plantarum* 1686. in fol.

Raii Cat. Plant. Angl. Joannis Raii *Catalogus Plantarum Angliae & Insularum adjacentum.*

Raii Cat. Plant. Cant. *Catalogus Plantarum circa Cantabrigiam nascentium.* Cantabrigiae 1660.

Raii Synopf. Joannis Raii *Synopsis methodica stirpium Britannicarum.* Editio 2. Londini 1696.

Ruel. Ruellius. *De natura stirpium Libri tres* Joanne Ruellio autore. Parisiis 1536.

Schwenck. Caspari Schwenckfeltii *stirpium & fossilium Silesiae Catalogus.* Lipsiae 1600. in 4to.

Tabern. Icon. *Tabernaemontani Icones Plantarum seu stirpium.* Francofurti ad Maenum 1590.

Thal. *Thalii Sylva Hercynia sive Catalogus Plantarum sponte nascentium in montibus & locis vicinis Hercyniae.* Francofurti ad Maenum 1588.

It is usually bound up with the *Hortus medicus Camerarii.*

Trag. Hieronymi Tragi *stirpium libri tres.* Argentorati 1552. in 4to.

V. L. *Viridarium Lusitanicum* Gabrielis Grisley. Ulyssipone 1660. in 120.

Zan. *Istoria Botanica di Giacomo Zanoni Semplicista è Sopraintendente all'Horto publico di Bologna.* In Bologna 1675. in fol.

ERRATA in the first Volume.

PAGE 4. line 6. read Description. l. 15. r. Dodo- P. 28.
 l. antepen. r. affinis. P. 32. l. 8. r. Cat. Gifs. P. 46.
 l. 16. r. repando. P. 57. l. 20. r. sweat in Pestilential Cafes.
 He. P. 73. l. 7. r. pint. P. 75. l. 18. r. viridi. P. 92. l. 9. r.
 Foenum. P. 116. l. antepen. r. roseum. P. 125. l. 27. r. pu-
 milum. P. 129. l. penult. r. minima. P. 154. l. 17. r. Jus.
 l. penult. r. Plant. P. 174. l. 23. r. Scorpioides. P. 183.
 l. 12. r. refuted. P. 199. l. 12. ~~dele~~ the 5th Cnicus. P. 222.
 l. 16. Damafonium should begin a new Paragraph. P. 224.
 l. 10. r. 5. P. 233. The *Latin* Synonymies of Echium should
 be in *Roman* Characters. P. 253. The *Latin* Synonymies of
 Euphrasia should be in *Roman* Characters. P. 294. l. 17. r. ma-
 ritimum. P. 298. l. 20. r. Panicum.



A
HISTORY
OF THE
PLANTS

Growing about *P A R I S*.



ABIES tenuiore folio, fructu
deorsum inflexo Inst. 585.
Picea major prima five *Abies*
rubra C. B. Pin. 493. *Abies*
Dod. Pempt. 866. *Juss.* 2.
232. *The common Firr-tree or*

Pitch-tree. It is said to grow on the Scots
mountains.

THE catkins of this plant appear in *April*
and *May*. They consist of a number of sum-
mits, disposed in a simple spike, intermixed
with several scales, and fastened round an

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B

axle.

axle. This spike is about an inch long, and comes out of a scaly empalement. The young fruits appear at the same time. They are other scaly spikes, which come in like manner out of a scaly empalement, and are ripe in *September* and *October*. Vaill.

1. ABROTANUM campestre, cauliculis albicantibus C. B. Pin. 136. Abrotanum campestre Tabern. Icon. 16. Abrotanum sylvestre inodorum, cauliculis ex viridi albicantibus Schwenck. 5. *Fine leaved Mugwort, by some Southern-wood, with whitish Stalks. At Elden in Suffolk, twelve miles beyond Newmarket.*

2. ABROTANUM campestre cauliculis rubentibus C. B. Pin. 136. Abrotanum inodorum, cauliculis purpurascentibus Schwenck. 5. *Artemisia tenuifolia, five leptophyllos, aliis Abrotanum sylvestre, J. B. 3. 194. Fine-leaved Mugwort, or Southern-wood, with reddish stalks.*

THE same species is often found with green and with red stalks, as *Schwenckfeltius* and *C. Baubin* have observed: One may often see also stalks of different colours upon the same plant. The green stalked have become red, after being cultivated in the Royal Garden. *C. Baubin* did not rightly understand *Clusius's* meaning with respect to these varieties: For he distinguishes them only by the Leaves. The *Artemisia tenuifolia* 2.
* *Clus.* has purple stalks and whitish leaves:

* *Clus. Hist.* 340.

And the *Artemisia tenuifolia* 3. of the same Author has purple stalks, and dark green leaves inclining to red.

J. BAUHIN has very well observ'd, that the leaves of this plant are whitish, and hairy during the winter, but that those which push forth in the month of *June* are green, and longer: They are sometimes found reddish. This plant has a great deal less scent than the other species of *Southern-wood*; but I cannot say it has none at all; for if you rub the leaves, they smell like the *Carline-thistle*; which makes me believe the species *C. Bauhin* * calls *Abrotanum campestre, incanum, Carlinae odore*, which he observ'd about *Lintz* in *Austria*, is not very different from that of which we are speaking; so that he had no reason to suspect it to be the *Artemisia* 1. *Clus.* which is an aromattick plant, but very rare even in *Spain*, where *Clusius* first observed it.

1. *ACER* campestre, & minus C.B. Pin. 431. *Acer vulgare, minori folio* J. B. 1. 166. *Acer minor* Dod. Pempt. 840. *Acer* Tabern. Icon. 973. *The common Maple. This is common in our hedges.*

C. BAUHIN had no reason to refer to this the *Acer latifolium* of *Clusius*, for he here speaks of the *Acer montanum, candidum* Pin. and calls this species † *Acer alterum*,

* Prod. 73.

† Clus. Hist. 10.

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minore folio: So that I know not why *C. Bauhin* should refer the *Acer latifolia* *Clus. Pan.* to the *Acer montanum, candidum*, and the *Acer montanum* *Clus. Hist. Icon.* to the *Acer campestre minus, & vulgare*; for certainly his figure and discription bear no manner of resemblance to them. *C. Bauhin* was mistaken perhaps by the reading of *Clusius*, who says, that his small species of *Maple* is called *Sycomore* in *France*; but *Clusius* himself was mistaken; for they have given the name of *Sycomore* in *France* to the great *Maple*, which is the *Acer montanum, candidum*; at least this species is now called *Sycomore* at *Paris*, tho' it does not at all resemble the *Sycomore* of the Ancients.

THE Wood of the *Maple* is very fit for the use of Turners.

It flowers towards the end of *April*. The flowers are disposed in bunches. They have five pale-green petals, eight chives, and an empalement cut into five segments. The embryo consists sometimes of two, and sometimes of three capsules; and the stile is bifid or trifid accordingly. There are male and hermaphrodite flowers mix'd together in the same bunch. The fruit is ripe in *September*. *Vaill.*

2. *Acer montanum, candidum* C. B. Pin.
430. *ACER majus, multis falso platanus*
J. B. I. 168. *Acer major* Dod. Pempt. 48.
The greater Maple, commonly, but falsely, called the Sycomore-tree. In church-yards, and about gentlemen's houses.

It is probable, that they called this tree *Sycomore* at *Paris*, because of its milky juice, and the resemblance of its leaves in some degree to those of a *Fig-tree*; but otherwise it is very different from the *Sycomore* of the antients. *C. Baubin* was mistaken, when he referred this plant to the *Acer major* of *Camerarius*: that of *Camerarius* is different, as appears by his figure. *Lobel* has given two figures of our *Maple*; for the *Acer major Cordi Lob.* is the same plant with the *Acer Lob.* unless there be a transposition in *Lobel's* names. We must refer to this plant the *Acer latifolium Clus. Hist. Icon.* which *C. Baubin* has referred to the *Acer campestre & minus Pin.* as we said before. In the *Hist. Lugd.* they have transposed the figure of the *Acer montanum*, and that of the *Acer campestre, Carpinus.*

3. *ACER montanum, candidum, fructu rubente. Just. 2. 234. Vaill. 2.*

THIS seems to be only a variety of the preceding.

4. *ACER campestre & minus, fructu rubente. Vaill. 2. Acer campestre & minus. B. Pin. pericarpio externe purpureo. H. Cath. suppl. alt. 4.*

BETWEEN *Lee Common* and *Weston Green*, in the road to *Eltham*, on the left-hand, over-against the road that goes to *Mockingham*; *Dr. Sherard Synops. Brit. 470.*

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5. ACER Platanoides Munt. Hist. 55. & Phytogr. fig. 11. Acer Cam. in Matth. Germanice 47. Acer montanum, Orientalis Platanifolii atrovirentibus, Pluk. Phytog. tab. 252. fig. 1. Aceris majoris varietas J. B. 1. lib. 8. 168. Acer major Cam. Epit. 63. Acer montanum tenuissimis & acutis foliis C. B. Pin. 431.

1. ACETOSA pratensis C. B. Pin. 114. Oxalis vulgaris, folio longo J. B. 2. 989. Oxalis Dod. Pempt. 648. *Common Sorrel. In meadows and pastures.*

It flowers in *June* and *July*. The flower and fruit are both red. *Vaill.*

THE root of this plant is not sour, as * *Matthiolum* affirms: it is on the contrary very bitter, very astringent, and gives but a faint red colour to the blue paper, whereas the leaves give it as deep a red as allum. The red from the leaves continues after the paper is dry; that from the roots vanishes, nothing remaining but a brown spot. The essential salt of the Sorrel is a mixture of sal ammoniac and nitre; it crackles in the fire, and smells of an urinous spirit, when dissolved in oil of tartar. The sal ammoniac seems to be most disengaged in the roots, because they stain the blue paper with a red colour, which the nitre could not do; but

* Matth. 441.

in the leaves their acids are disengaged from a great quantity of acrid salt, and become in some measure like the acid spirit of sal ammoniac, or that of nitre. In the roots these two sorts of salts are united with a little fetid oil, and a pretty deal of earth. In the leaves they are dissolved in a great quantity of phlegm. There does not appear any vitriol in the *Sorrel*: for the juice of its leaves does not blacken the tincture of galls, any more than other acids which have nothing metallic in them. So that it is no wonder the different parts of the *Sorrel* have different virtues. The roots where the sal ammoniac, the sulphur, and the earth predominate, are good to remove obstructions in the bowels: they are prescribed in broths, decoctions, and opening ptisans: the leaves on the contrary, which are so sharp that they set the teeth on edge, cool, by diminishing the fermentation of the blood, and temper the bile, or keep it from inflaming. *Simon Paulli* relates, that in *Greenland* they give to those that are troubled with the scurvy, broths, or decoctions, of *Cochlearia*, with *Sorrel* leaves, which correct its acrimony. It has been observed also, that the use of the roots and leaves of this plant very much relieve scorbutick persons, of a dry and bilious constitution. The leaves bruised or roasted under the coals, hasten the suppuration of tumours, as well as leaven: the roots stain water with

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a red colour, and may serve to cheat sick people that want to drink wine, especially if you add a little juice of pomegranates.

2. ACETOSA arvensis, lanceolata, C. B. Pin. 114. Acetosa parva, auriculata repens J. B. 2. 992. Oxalis ovina Tabern. Icon. 440. *Sheep sorrel. Common in meadows.*

THIS plant flowers in *May* and *June*. Its capsule is smooth, that is, the edges of its incisures are not toothed. *Vaill.*

7. *Bauhin* seems not to have distinguished it from the following.

3. ACETOSA lanceolata, angustifolia repens C. B. Pin. 114. V. Prod. & not. IV. as we read in the Pinax. Oxalis minima 1. Tabern. Icon, 441. *With the former.*

4. ACETOSA lanceolata, angustifolia, repens C. B. Pin. 114. Oxalis minima Tabern. Icon. 441.

5. ACETOSA arvensis minima non lanceolata C. B. Pin. 114.

THIS plant seems to me to be only a variety of the *Acetosa arvensis lanceolata* C. B. Pin. with which it agrees in its flowers and seeds growing on different plants. *Vaill.*

6. ACETOSA crispa Mor. Hist. 582. Oxalis crispa Tabern. Icon. 440. Acetosa foliis crispis C. B. Pin. 114. Oxalis crispa J. B. 2. lib. 23. 990.

7. ACETOSA pratensis flore albo H. R. Par. 3.

THE flower and fruit of this are white.
Vaill.

8. ACETOSA sylvatica, subincana & villosa.
Vaill. 2.

It differs from the common one, in being clothed with a short down, which renders it whitish. *Ibid.*

9. ACETOSA minor, erecta, lobis multifidis Bocc. Mus. 2. 164. Acetosa minor, lobis multifidis ejusd, Tab. 126. Acetosa lanceolato folio e basi lata polyfido, Etnensis H. Cath. 3.

10. ACETOSA lanceolata, angustifolia repens C. B. Pin. 114. Prod. 55. H. Paris. 47. Oxalis minima 1. Tabern. Ic. 441. Acetosa lanceolata minor Schwenkf. 8.

It flowers in *April* and *May*. *Vaill.*

1. ADIANTUM album Officinarum. Ruta muraria C. B. Pin. 356. J. B. 3. 753. Dod. Pempt. 470. *White Maiden-hair, Wall-rue, Tentwort.*

LOBEL calls this plant *Salvia vitae*, and *Matthiolus*, *Paronychia*; several authors have affirmed it to have no seed; *J. Bauhin* is persuaded it has both flower and seed: it is certain that it has no flower. As for the seeds, I have caused them to be exactly engraved in. the * *Elemens de Botanique*: the *Ruta muraria* is reckoned one of the five capillaries.

* Tab. 337.

It has the same virtues with the other capillaries; that is to say, it lenifies the breast, and evacuates the glutinous matters which occupy the lungs. *Hoffman* and *Michael* affirm it to be good for the scurvy: some others recommend it as a good diuretick.

2. *ADIANTUM nigrum officinarum* J. B. 3. 742. *Adiantum foliis longioribus, pulverulentis, pediculo nigro* C. B. Pin. 355. *Dryopteris nigra* Dod. Pempt. 466. *Common black Maiden-hair or Oak-fern.* In shady places and on old walls.

* By the chymical analysis, we draw from this plant several acid liquors; a little urinous spirit and fix'd salt, and a great deal of earth and oil. It is employed in the capillary syrup of *Renodaeus*. It is reckoned amongst the five common capillaries. It is sweetning, gently aperitive, and of the same temperament with the other capillaries. It contains a great deal of viscid phlegm, a great deal of sulphur, a little sal ammoniac, and a great deal more of another salt, which approaches to that of coral. *I suppose the two following, which are recited by M. Jussieu, are of the same family.*

* Extract of the registers of the royal academy of sciences.

FILICULA regia fumariae pinnulis *Juss.* 2.
347.

FILICULA fontana Adianti facie, latifolia
dentata Schol. Bot. 3.

AGARICOIDES parvum, album, lamellis sub-
luteis. Fungus parvus, lamellatus, pectun-
culi forma, alno adnascens Raii Syn. *Vaill.*
70. *I have found it in woods, as in Bishop's
wood near Hamstead, and in Madingley
wood.*

1. AGARICUS pedis equini facie *Inst.* 562.
Fungus in caudicibus nascens, unguis equini
figura C. B. Pin. 372. *Touch-wood or spunk.*
It grows on trees.

2. AGARICUS praecox, albogilvus cristatus
Inst. 562. Fungus palmatus, praecox, albo-
gilvus cristatus *Bocc. Mus. Part. 1. Tab. 302.*
Fungus palmatus *Barr. Icon. 1267. Obs. 118.*
Juss. 1. 85.

THIS *Fungus* is well represented in *Barre-
lier's* figure, and *Boccone* has copied it.
Juss.

3. AGARICUS lichenis facie *Inst.* 562.

4. AGARICUS foliatus, cornua damae re-
ferens *Comm. Ac. Reg. Scient. 89.*

5. AGARICUS de St. Clou, an fungus
parvus pullus, stipitibus cariosis adnascens,
superne lamellatus D. Vernon. *Pluk. Mantiss.*
86. *Vaill. 3.*

6. AGARICUS de St. Clou, nigerrimus.
Ibid.

7. AGARICUS fuscus sericeus. *Ibid.*

I. AGRI-

I. AGRIMONIA officinarum Inst. 301. Agrimonia seu Eupatorium J. B. 2. 398. Eupatorium veterum, five Agrimonia C. B. Pin. 321. Eupatorium graecorum, Agrimonia officinarum Lob. Icon. 692. *Agrimony.* On the borders of fields and near hedges.

It has a stiptick taste, a little saltish, mixed with as little acrimony as possible, and gives but a faint red colour to the blue paper; which gives us reason to believe, that it contains a salt resembling the vitriolated tartar, or the salt of *Coral* made with the spirit of verdigris. This salt is mixt in the *Agrimony* with a great deal of sulphur, and a pretty deal of earth: thus it is astringent, deterfive, vulnerary, and aperitive, as they call the contracting the fibres of the parts, and opening the texture of the bowels, very often depending upon the same principles.

THE *Agrimony* is good in all chronical diseases; for it absorbs, and cuts the condensed lymph, which generally causes them: it is employed in ptisans, decoctions, broths, and potions which are aperitive, cooling and vulnerary. It is useful in spitting blood, hemorrhagies, dysenteries, and inflammations of the liver and spleen. Externally applied, it is very vulnerary, and good to dissolve the tumours of the testicles, and other parts, where there is an inflammation. *Tragus* affirms, that it is excellent for luxations:

tions : they boil it with wine-lees, and bran, and apply it to the Part when it is set.

2. AGRIMONIA odorata Cam. Hort.

1. ALCEA vulgaris, major C. B. Pin. 316. Alcea Tabern. Icon. 771. J. B. 2. 953. *Vervain mallow. In hedges. About Mansfield it is more frequent than the common mallow.*

The figures of *Lobel* and *Dodonæus* are not good ; *Tabernaemontanus's* is better. We had better refer the figures of *Matthiolum* and *Fuchsius* to the *Alcea cannabina* than to this ; for the leaves are much deeper cut.

THE *Alcea* has almost the same virtues with the *common mallow* ; *Pena* and *Lobel* observe, that it is less glutinous, and more resolving.

2. ALCEA hirsuta C. B. Pin. 317. Alcea villosa Dalechampii Lugd. 594. J. B. 2. 1067.

J. Bauhin's figure is better than that in the *Hist. Lugd.*

It flowers in *June* and *July*. Its flower is flesh-coloured, striped with white.

3. ALCEA vulgaris major, foliis magis dissectis. Herba Simeonis Brunsf. 2. 76. Ic. Vaill. 3.

It flowers in *July* and *August*. *Ibid.*

4. ALCEA folio rotundo, laciniato C. B. Pin. 316. Malva montana five Alcea rotundifolia, laciniata Col. Part. 1. 148. Vaill. 3.

WE must refer the *Alcea fruticans* Hort. Eyst. Icon. p. 218. and not to the first, as C. Bauhin has done in his *Pinax*.

IT flowers in *July* and *August*, and its flower is of a flesh-colour. *Vaill.*

1. *ALCHIMILLA montana*, minima Col. Part 1. 146. Chacrophyllo nonnihil similis C. B. Pin. 152. *Perchepier Anglorum* quibusdam J. B. 3. part. 2. 74. *Parfley-piert*. *Amongst corn and on fallow fields*.

Mr. RAY affirms the flower of this plant is tetrapetalous; but it is certainly apetalous, and the empalement, which he took for the flower, is monophyllous. *J. Bauhin* says, that its root is black, and hollow: in this country it is solid, and yellowish; the whole plant is insipid; in *England* it should be acrid; for *Lobel* and Mr. *Ray* affirm, that it is so. *Fabius Columna*, who has given an excellent figure of it, and whose description is deficient in nothing but the flower, observes that the figure of the *Perchepier Anglorum* of *Pena* and *Lobel* is good for nothing: that of *Tabernaemontanus** who calls it *Scandix minor*, is no better, and that of *Parkinson*§ is worse still.

2. *ALCHIMILLA supina*, gramineo folio, minore flore Inst. 508. Polygonum angustissimo & acuto, vel gramineo folio minus,

* Icon. 96.

§ Theat. 449.

repens C. B. Pin. 281. Polygonum 3. Dodonaei, five tenuifolium J. B. 3. 377. Polygonum minus, alterum Tabern. Icon. 835. German Knot-grass, or Knavell. Common in a sandy soil.

Tabernaemontanus's figure is not bad, any more than that of *Dodonaeus*, * who calls it *Polygonum* 2. or *Knavell*, and not *Polygonum exiguum*, as *C. Bauhin* says. Mr. Ray was in the right to place this plant among the apetalous flowers; but he has varied in the description of its flower; for he affirms at first, that it consists of five little greenish petals, afterwards he allows that this part ought rather to be called the empalement of the flower: this author seems to have believed that the seed sustains the empalement: § *Flosculus quisque semini suo insidet umbilici instar, nec per seminis maturitatem decedit, sed ei perpetuo inhaeret.* This is what has appeared to me concerning the structure of these parts: the flowers grow by little bunches in the bosoms of the leaves, and at the extremities of the branches: they consist of five very short chives, growing out of the bottom of the empalement, and charg'd with yellow summits; this empalement is one-leaved, two lines long, greenish, expanded at top, and contracted at bottom in

* Pempt. 115.

§ Hist. 213.

form.

form of a pipe, a little inflated. After the chives are withered, the pointal, which occupies the bottom of this pipe, becomes a seed, a little oval, whitish, one line long; and then the empalement grows hard and reddish. *C. Baubin* and *Morison*, have referred to this species the *Saxifraga Anglica*, of which * *Pena* and *Lobel* speak in their memoirs: but their figure represents much better that species of *Alfine*, which I have called *Alfine Caryophylloides subhirsuta, capillaceo folio, pulchro flore albo Inst.* It is their business to decide it who live where it grows: the authors of whom we have spoken, observed it upon the road from *London* to *Bristol*. If it is the *Knawell*, the figure of it is very bad, as is also that of *Tabernaemontanus*, the title of which is *Polygonum minus, Polycarpon Icon. 834.*

3. *ALCHIMILLA linariae folio, calice florum albo Inst. 509. Linaria montana flosculis albicantibus C. B. Pin. 213. Linariae similis J. B. 3. 461. Anonymos lini folio Clus. Hist. 324. Bastard Toad-flax. On Gogmagog hills, and Newmarket heath.*

CLUSIUS took its flower to be pentapetalous. It has five very short chives (each charged with a yellow summit) growing out of the bottom of a monophyllous empale-

* Adv. 183.

ment, two lines long, cut at top into five segments, pointed, and white; contracted at bottom like an inflated pipe: the greenish pointal is hid in that part, and becomes afterwards an oval seed, one line long, which ripens in the empalement, the segments of which usually bend inwards.

4. ALCHIMILLA *Linariae folio*, calice florum subluteo. Inst. 509.

5. ALCHIMILLA *gramineo folio*, majori flore Inst. 508. *Polygonum angustissimo & acuto vel gramineo folio montanum* Schol. Bot. 120. *Polygonum alterum Germanicum* Park. Theat. 446. Pluk. Almag. Vaill. 4.

1. ALGA *graminea, fluviatilis, longissimo folio* Inst. 569. *Potamogiton fluviatile, longissimo, gramineo folio*, nostras Pluk. Mantif. *In the Thames and Lee.*

1. ALISMA *repens, foliis gramineis & subrotundis*. *Damaſonium radículas emittens ex geniculis. Ranunculus palustris, foliis gramineis & subrotundis* Petit. Epit. pag. 47. *Damaſonium repens, Potamogetonis rotundifolii folio* Tab. 4. fig. 9. Act. Ac. Reg. Sc. 1719. Vaill. 46. *In the great lake, below the old castle at Llanberys; Mr. Brewer.*

2. ALISMA *Cord. in Diosc.* *Ranunculus palustris, Plantaginis folio ampliore* Inst. 292. *Plantago aquatica, latifolia* C. B. Pin. 190. *Plantago aquatica.* J. B. 3. 787. *Plantago palustris five aquatica* Tabern. Icon. 734. *Great Water-plantain.*

TABERNAEMONTANUS has a very good figure of it; we must not confound it with that which Lobel calls *Plantago aquatica, foliis Betae aut Plantaginis, flore Gallii albi*, as C. Baubin does: Lobel's figure gives a better representation of the following.

3. ALISMA *angustifolium, umbellatum, capitulis rotundis*. Ranunculus palustris, Plantaginis folio, angustiore Inst. 292. Plantago aquatica angustifolia C. B. Pin. 190. Plantago aquatica minor Tabern. Icon. 734. *The lesser Water-plantain. I have not found this about London: it is common in the moors about Cambridge.*

WE must not confound the *Plantago aquatica humilis, angustifolia & longifolia* Lob.* with this plant; as C. Baubin has done. We need but compare the figures of *Tabernaemontanus* and *Lobel*, to see the difference.

4. ALISMA *umbellatum, foliis angustissimis*. Ranunculus aquaticus, Plantaginis folio angustissimo Inst. 292.

THE root of this plant is a tuft of white, capillaceous fibres. The leaves are two or three inches long, two or three lines broad, pale-green, having nerves running lengthwise, pointed, sustained by a pretty long pedicle, insipid at first, but afterwards tasting something like *Coriander*. The stalks are usually

* Lob. Icon. 300.

crooked, naked, one line thick, terminated by an umbel of flowers, the rays of which are an inch and a half long. Each flower has three petals, which are almost round, pointed, white, inclining to a flesh-colour, with a yellow nail. The empalement consists of three hollow, yellowish-green, smooth, shining leaves, a line and half long, pointed, channelled. Each flower has six very short chives, each loaded with a yellow summit. The pointal of the flower is a little greenish button, which becomes afterwards three lines diameter, and sustains several cluster'd seeds, channelled, one line long, pointed, of the same taste with the leaves.

IT flowers in *July* and *August*. It varies according to the soil. I have observed it at *Montpelier* a foot high, and with two or three umbels, one above another.

CLUSIUS's description of his *Plantago aquatica minima* * would agree well enough with this plant, if he did not affirm that the fruits open into two parts, and inclose small seeds; which agrees better with the *Damasonium*.

5. *ALISMA humile, supinum, angustifolium*. *Ranunculus palustris, Plantaginis folio, humilis & supinus* Inft. 292. *Plantago aquatica, humilis, angustifolia & longifolia* Lob. Icon. 300.

* Clus. hist. cx.

THIS species is very well represented by *Lobel's* figure.

ALKEKENGİ officinarum Inft. 151. Solanum vesicarium C. B. Pin. 166. Solanum halicacabum, vulgare J. B. 3. 609. Solanum vesicarium Dod. Pempt. 454. *Winter-cherry.* This is not a native of England; but is cultivated commonly in gardens for medicinal uses.

ALKEKENGİ leaves are acrid and bitter: they give no tincture of red to the blue paper; but the fruit gives it a very deep one. It seems at first to be sourish, but afterwards very bitter; so that 'tis probable there may be in the fruit a salt like the *Oxyfal diaphoreticum Angeli Salae*, mix'd with a little fetid oil, but so involv'd in the leaves with sulphur and terrestrial parts, as not to be perceptible.

THE *Alkekengi* is very aperitive and diuretick: *Dioscorides* made use of it for the jaundice and suppression of urine.

THE bruising or squeezing of three or four *Winter-cherries* in a glass of wine, in hydropical cases and suppression of urine, is advised by *Arnaud de Villeneuve* and *Caesalpinus*. In vintage-time take a sufficient quantity of *Winter-cherries* and grapes; squeeze or bruise both together to make a must, tun it up, and take four ounces of this wine every morning for the gravel. The juice thickened to the consistence of an extract, has the same virtues. Four or five cherries

cherries squeezed in an ordinary emulsion, drank while in the bath, is good for a suppression of urine. *Brassavole* used the juice of these fruits in the same disease: he affirms, that one who suffered exquisite pains for three days, was perfectly cured by it. There are Lozenges prepared of the fruit of *Alkekengi*. M. *Lemery* has given an excellent description of them: this fruit is used in the syrup of succory, and the antinephritick syrup of the royal dispensatory.

1. *ALLIUM sylvestre latifolium* C. B. Pin. 74. *Allium ursinum, bifolium, vernum, sylvaticum* J. B. 2. 565. *Allium ursinum, latifolium* Lob. Icon. 159. *Ramsons*. It is common in moist and shady places, and flowers in April.

2. *ALLIUM montanum, capite rotundo* C. B. Pin. 75. *Allium sphaerocephalum, purpureum, sylvestre* J. B. 2. 562. *Allium seu Moly montanum, v.* Clus. Hist. 195.

C. BAUHIN judged much better of this plant, than his brother, who has confounded it with the *Allium caninum* 1 * *Trag.* the *Allium campestre* † *Cord.* the *Allium sylvestre primum* § *Fuchs.* and the *Allium sylvestre minus* ** *Dod.*

ALNUS rotundifolia, glutinosa, viridis C. B. Pin. 428. *Alnus vulgaris* J. B. 1. 151.

* *Trag.* 748. † *Cord.* Hist. 143. § *Fuchs.* Hist.
 ** *Dod.* Gal. 444.

Alnus Dod. Pempt. 839. *The common Alder-tree. In watery places.*

LOBEL represents this plant in the figure of the *Alnus altera Clusii*, which is very different: *Tragus*, *Gesner*, *C. Bauhin* upon *Matthiolum*, *Dodonaeus*, and *Stapel* confound its catkins with the fruits. *J. Bauhin* distinguishes them very well: this author supposes the little threads at the end of the young fruit to be the flowers of the *Alder*; but this is no more than a dispute about the name: I believe we had better take the catkins for the flowers. All these parts are correctly engraved in the * *Elemens de Botanique*; the dyers and hatters make a beautiful black with the infusion of iron and the bark of the *Alder*: the *Hist. Lugd.* relates, that a tincture is made of vitriol and an infusion of the fruit of this tree; thus it is probable the bark and fruits may contain the same principles as the galls, viz. a great deal of acid and earth. *Tragus* and *Dodonaeus* made use of its leaves as a cataplasm to soften and resolve tumours. *Alder* leaves are used in the *Alps* in paralytick cases, especially when the disease has proceeded from an external cause, as lying in the fields or damp houses. Thus some sack-fulls of the leaves either dried in the sun or an oven, are spread

* Tab. 350.

forth, upon which the patient lies, being sufficiently covered with the same and other warm cloaths, till he has sweated plentifully. This remedy is good for the rheumatism, sciatica and such like diseases: those that have the pox receive no benefit by it.

I. ALSINASTRUM Gratiolae folio Inst. 244.
& Alsinastrium Gallii folio Ibid. Found by
Mr. J. Sherard on boggy ground, on the common
just by the road from Eltham to Chislehurst.
Syn. Stirp. Brit. 346.

THE roots are composed of white fibres, coming out of the lower joints of the stalk, and disposed in whirls. The stalk is divided on the inside and lengthwise, into ten cells, formed by little membranaceous leaves, which are placed in form of a ray. It is channelled throughout its length, and that part, which appears above the water, is pale, the other washed with a little purple, and distinguished with joints, at the distance of two lines, to which are fastned eight or ten leaves, and sometimes twelve, before the stalk gets above the water. These leaves are disposed in rays, and are but about one third part of a line broad at their base, to eight or ten lines in length. Those which appear above the water, are much broader and shorter, not much unlike those of the *Glaux maritima* C. B. The flowers grow in the bosoms of some of the leaves, and consist of four white, round petals, about $\frac{1}{2}$ of

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a line in diameter, placed round a pointal, and opposite to the divisions of an empalement, which is cut into four equal segments. It has four very short chives sustaining white summits. The pointal at last becomes a round, flat capsule, ribbed like a melon, having a navel on the fore part, and opening into four parts to the very base, and disclosing many oblong Seeds. It flowers in *July* and *August*. *Vaill.*

2. *ALSINASTRUM serpyllifolium*, flore albo tetrapetalo. *Vaill.* 5.

3. *ALSINASTRUM serpyllifolium*, flore roseo tripetalo. *Vaill.* 5.

1. *ALSINE media* C. B. Pin. 250. *Alfine vulgaris*, five *Morsus Gallinae* J. B. 3. 363. *Common Chickweed*. Under hedges and in gardens among pot-herbs.

THE *Chickweed* varies according to the place of its growth, as *Tragus* has observed: the figure of the *Alfine media* *Tabern.* * represents it high and spreading, as one finds it in shady places. In *Dodonaeus's* § figure it appears more low, bushy, and like that which grows frequently in gardens: I suspect it is the *Alfine marina* of this last author. *J. Baubin* supposes this to be the species which he has named *Alfine Plantaginis folio*. For my part I do not like *Dodonaeus's* figure;

* Icon. 70.

§ Pempt. 20.

and it seems to resemble neither *J. Bauhin's* plant, nor that of which we are speaking. So that it is a wonder that *Lobel* should make use of this figure to represent the *Chickweed*: but he had but a confused notion of it, as *J. Bauhin* demonstrates. *Thalius* probably spake of this plant under the name of *Alfine minor*; but as he makes several species of it, we must say *Alfine minor foliis oblongis, mucronatis*, and not simply *Alfine minor*, as *C. Bauhin* has done.

THE *Chickweed* is of an herby taste, a little saltish. *Cordus* found something nitrous in it; nevertheless, as it gives a pretty deep red colour to the blue paper, its salt seems to resemble the *sal ammoniac*, which is natural in the salt of the earth; but in this plant is dissolved in a great quantity of phlegm. *J. Bauhin* affirms, that the distilled water of *Chickweed*, or the infusion of it in wine, restores those who are emaciated, after long diseases. *Schroder* commends it highly for the phthisick. The use of this plant cures children of convulsions; and they give a dram of its powder for the epilepsy. *Solennander* says, that its powder being laid on the piles, stops their immoderate flux, and asswages the pain. The juice of *Chickweed* is vulnerary and deterfive, like the *sal ammoniac*; which is good to cleanse the mouth, and take away inflammations. For spitting blood, the patients must eat *omelettes* made
of

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of this herb, minced small, instead of parsley. Applied to the breasts, it dissolves the curdled milk, and dissipates the too great quantity of this liquor. To all these virtues we may add that of cooling, which is attributed to the *Chickweed*. For the greatest part of remedies cool no otherwise, than by quickening the motion of the blood, which, because of some obstructions in the bowels, stagnates, ferments more violently, and heats all the neighbouring parts. Aperitives are capable of cooling in that sense, because they open the passages thro' which the liquors ought to circulate. The antients, who in remedies, inquired more into the effects than the causes, ought not to be blamed for calling the greatest part of those cooling, which are capable of augmenting the motion of the humours. Every body knows, that *Chickweed* is frequently used to restore the appetite to canary birds, linnets, and other caged birds; this use is not new; *Tragus*, *Anguillara*, and several authors have mentioned it.

2. ALSINE Plantaginis folio J. B. 3. 364. *Plantain-leaved chickweed. In shady places, and among bushes.*

Mr. RAY has described this plant very well, but he had no reason to suspect that it was that which *C. Bauhin* * calls *Alfine*

* Pin. 251.

aquatica media: that of *Baubin* is very well engraved in † *Tabernaemontanus*, and is not often found but along the brooks, in the *Pyrenees*, and the *Alps*.

THE *petals of this are entire*; it is the *Spergula plantaginis folio* Dillen. Cat. Gifs. 58.

3. *ALSINE minor multicaulis* C. B. Pin. 250. *Alfine minima* J. B. 3. 364. *The least chickweed on walls*.

J. BAUHIN's figure is transposed; that of || *Tabernaemontanus*, who calls it, *Alfine minor*, is not bad; this plant varies according to the place where it grows; and, I believe, there is little difference between it and that which the same author calls *Alfine petraea minima*. If *Tragus* intended to comprehend it under his fourth species of *chickweed*, he is mistaken, for its flowers are whitish, and not blueish.

THIS *also has entire petals*: it is the *Spergula multicaulis* Dillen. Cat. Gifs. 58.

4. *ALSINE verna, glabra, floribus umbellatis, albis* Inft. 242. *Caryophyllus arvensis, umbellatus, folio glabro* C. B. Pin. 210. *Caryophyllus arvensis, umbelliferus* J. B. 3. 361. *Holostium Caryophyllaeum, arvense*, Tabern. Icon. 233.

† Icon. 711.

|| Icon. 701.

THIS last author's figure is a great deal better than that of the *Alfine verna* Lugd. *Dalechampius*, however, is the first who has ascribed this Plant to its true genus. *Fabius Columna* has confounded it with that which he calls *Eufragia Linifolia* Part 2. 68.

M. VAILLANT has observed that the Flower of this *Alfine* or *Spergula*, has but three *chives*, and that the pointal ends in three threads, which are expanded horizontally.

5. *ALSINE pratensis*, gramineo folio ampliore Inst. 243. *Caryophyllus arvensis*, glaber, flore majore C. B. Pin. 210. *Gramen Fuchsii*, five *Leucanthemum* J. B. 3. 361. *gramen floridum majus* Tabern. Icon. 232. *The greater stitchwort.* In bushy places and under hedges.

DODONAEUS affirms, that the fruit of this species is oblong, it appears to me to be rather spherical.

THE juice of this plant, its distilled Water, its leaves and flowers bruised, are good to appease the inflammation of the Eyes, for which reason *Tragus* calls it *Euphrasia gramen* 329.

6. *ALSINE pratensis*, gramineo folio angustiore Inst. 243. *Caryophyllus arvensis*, glaber, flore minore C. B. Pin. 210. *Gramini Fuchsii* *Leucanthemo* affinis, & similis planta J. B. 3. 361. *the lesser stitchwort.* Among bushes, especially in a sandy soil.

J. BAUHIN's figure is good for nothing at all; that of *Tabernaemontanus* is good, under the Name of *Gramen floridum minus*. Icon. 232.

Mr. RAY observes very well that the *summits of this species are red*.

7. ALSINE altissima nemorum C. B. Pin. 250. Alfine major, repens, perennis J. B. 3. 362. Alfine major Dod. Pempt. 29. *great marsh chickweed. In marshy places, and by the sides of brooks.*

Mr. RAY had reason to believe that it was the same plant with the *Alfine aquatica*, major C. B. Pin: for the *Alfine palustris* * *Tabern.* does not seem to be different from the *Alfine major* of the same Author.

8. ALSINE maxima, folanifolia Mentz. pug. Tab. 2.

THIS plant is larger than the preceding; its leaves are waved and notched upon the edges. Mr. Ray believes it to be but a variety.

M. VAILLANT corrects our author with regard to the notches of the leaves, and denies that any Alfine has notched leaves.

9. ALSINE tenuifolia J. B. 3. 364. *Fine-leaved chickweed. On the borders of Triplow-beath in Cambridgeshire.*

* Icon. 707. & 713.

THIS plant entirely resembles that which *J. Baubin* describes to grow about *Montpelier*; and I believe that *C. Baubin* has described it under the name of *Alfine nodosa*, *Germanica Prodr.* 116.

THIS has entire petals: I have called it *Spergula tenuifolia elatior*. It flowers in May and June.

10. *ALSINE verna glabra*, Bot. Monsp. desc. 14. *Alfine tetrapetalos*, Caryophylloides, quibusdam *Holosteum minimum* Raii Hist. 1025. *Alfinella foliis Caryophylleis* Cat. Gifs. 47. the least stitchwort. It is common in barren, gravelly places.

THE flower consists of four white, blunt-pointed petals, two lines long, and half a line broad. The centre of the flower is occupied by an oval pointal, encompassed by four chives, with white summits, and divided at top in form of a cross. The empalement is tetraphyllous. The fruit is cylindrical and transparent, having eight indentations at the top. It flowers in April and May. *Vaill.*

11. *ALSINE minima flore fugaci* Inft. 243. *Saxifraga Anglica*, *Alfinefolia*, annua D. Plot. Raii Hist. 1026. Synopf. Ed. 3. 345. Annual pearlwort.

THE flower of this is like that of the former; but the petals of this are very soon lost, whereas those of the former commonly stick about the fruit till it is ripe. The seed-vessel
of

of this opens at top into four or five segments. It is said to be found about Hedington and Cowley in Oxfordshire.

12. ALSINE *Spergulae facie minima*, seminibus nudis Inft. 244. *Saxifraga palustris* Anglica Ger. em. 567. *Arenaria*. J. B. 3. p. 2. 723. *Vaill.* 7. *Spergula minor*, foliis *Knawel*, flore majusculo, albo *Dillen*. Cat. Gifs. 156. *English marsh saxifrage*. In boggy places. It flowers in July.

13. ALSINE *saxatilis* & *multiflora*, capillaceo folio Inft. 243. *Alfine polygonoides* herbacea minor, *Laricis* foliis capillaceis, ex uno pediculo plurimis *Pluk.* *Phytogr.* Tab. 75.

THE fruit of this plant (according to Mr. Vaillant) opens into three parts, from top to bottom. The petals are entire.

14. ALSINE *segetalis*, *gramineis* foliis, unum latus spectantibus *Vaill.* 8.

THE petals are entire; the seeds are very small and brown. It flowers in May and June. *Ibid.*

15. ALSINE *Spergulae facie minima* seminibus marginatis Inft. 244. *Alfine Spergulae facie minima* Bot. Monsp. 14. *Spergula annua* femine foliaceo nigro, circulo albo membranaceo cincto. *Mor. H. Ox.* 2. 351.

Dr. SHERARD found it in Ireland in sandy places.

16. ALSINE *Spergula dicta major* C. B. Pin. 251. *Spergula* J. B. 3. 722. *Dod.* *Pempt.* 537.

537. *Spurrey*. It is often found amongst corn.

17. ALSINE *Spergulae facie minor*, five *Spergula minor*, flosculo subcaeruleo C. B. Pin. 251. *Spergula purpurea* J. B. 3. 722. *Purple spurrey*. Common in sandy places.

18. ALSINE folio gramineo, angustiore, palustris *Dillen*. *Cap. Giss.* 173. *Caryophyllus holosteus arvensis medius* *Raii Synopf.* Ed. 3. 347.

THIS is easily distinguished by its glaucous colour. I have found it in great plenty on the boggy grounds about Gamlingay in Cambridge-shire.

19. ALSINE *segetalis*, gramineo folio, glabro, multiflora D. Sherard. *Raii Supp.* 500.

20. ALSINE *Hyperici folio* D. Vaillant *Inst.* 242. *Alfine longifolia uliginosis proveniens locis*. J. B. 3. lib. 19. 365. *Alfine aquatica media* C. B. Pin. 251. *Alfine fontana* *Tabern. Ic.* 712. *Long-leaved water chickweed*. In boggy and watery places.

It flowers in May, June, and July. Its flower is but two lines in diameter. It has five white entire petals, ending in a point. They are placed immediately upon the segments of the empalement, which they cover; the chives are ten in number; the pointal is surmounted by three threads, disposed in a triangle. The *Alfine fontana* *Tabern. Ic.* 712. resembles our plant pretty well. *Morison* (*H. Ox.* 2. 551.) says, the petals are bifid, but he is mistaken.

mistaken. Mr. Ray (*Synops.* 348.) is likewise mistaken, for he affirms, that they are divided in two to the very base. *J. Bauhin* says, the flower has ten white petals. *Vaill.*

21. ALSINE alpina, subhirsuta Linariae folio *Inst.* 339. Lychnoides Juniperi folio, perennis. *Vaill.* 121.

22. ALSINE palustris minima, flosculis albis, fructu Coriandri exiguo *Mentz.* pug. tab. 7.

ALSINEFORMIS paludosa tricarpos, flosculis albis, inapertis *Pluk.* *Phytog.* tab. 7. fig. 5. *Alfine palustris*, *Portulacae aquaticae similis* *Raii Hist.* 1035. *Portulaca exigua* five *arvensis* *Camerario J. B.* 3. 678. *Small water Chickweed or Purslane, by some called Blinks.*

It flowers in the spring, and is not uncommon in moist and boggy places. *Dr. Dillenius* says, the flower is monopetalous. *M. Vaillant* affirms it to be pentapetalous.

ALTHAEA Dioscoridis, & Plinii C. B. Pin. 315. *Althaea*, five *Bismalva* *J. B.* 2. 954. *Marsh-mallow.* In marshy places, near the Sea.

It is found with leaves more or less pointed; they appear a little too much so in the figures of *Dodonaeus*, *Clusius*, and *Lobel.* *Matthiolus*, *Fuchsius*, and *Tabernaemontanus*, have engraved it with rounder leaves; and it is, in all appearance, this last species which the learned Mr. *Satherland*, Professor

of Botany at *Edinburgh*, has named, *Althaea folio rotundiori, sive minus acuminato*. The leaves of the Marsh-mallow are sometimes indeed more or less angular. M. *Herman* has called that with the angular leaves, *Malva sylvestris, aut palustris, aut Ibis folio angulosiori*. *Cordus*, *J. Bauhin*, *Morrison*, and Mr. *Ray*, have taken the flower of this plant to be pentapetalous, whereas it is really monopetalous.

THE leaves of the Marsh-mallow are glutinous, and insipid, and give no tincture of red to the blue paper: Its roots have the same taste; but they stain it a little.

Its glutinous juice, which appears to be a mixture of a great deal of phlegm, a considerable quantity of earth, acid, and sulphur, so clogs the acrid salt, that it cannot discover itself, but by the fire; for it is certain that, by a * chymical analysis, we obtain from the Marsh-mallow a concrete, volatile, and a fixt lixivial Salt. The acid is a little more disentangled in the roots, because they give a faint red colour to the blue paper: Nevertheless, in all probability, this plant operates chiefly by its glutinous juice, which the fire entirely destroys. By the consent of all authors, it is very lenitive and emollient. By its mucilage it not only blunts the points

* Extract of the registers of the royal Academy of Sciences.

of the corrosive salts, but by relaxing the too much distended fibres, restores them to their natural tone, and consequently causes the pain to cease. The root of the Marsh-mallow is employed in lenitive ptisans; but it must not be mixed till towards the end, for fear of making them too clammy. These ptisans are of great use in a violent cough, when the spittle is acrid and saltish. In four quarts of water boil four ounces of the root of Nymphaea, and one ounce of the root of Marsh-mallow; strain this liquor thro' a linnen cloth, dissolve in it two drams of nitre, crystal mineral, or *Sal Prunellae*; give a good draught of it in a nephritick colick, in a heat and retention of urine, attended with a great inflammation. But when the inflammation is over, the Marsh-mallows must be omitted, for fear of rendring the humours too viscid. Boil also three pugils of Pellitory, and one ounce of the roots of Marsh-mallow, in three quarts of water, and strain the decoction; afterwards add as much sugar as will bring it to the consistence of a syrup; and give it to drink with convenient ptisans. For great inflammations in the Abdomen, after necessary bleedings, make also fomentations with the decoction of the leaves, flowers, and roots of Marsh-mallows and Violets, the seeds of Fenugreek, and the tops of Camomile and Melilot, and apply the *faeces* to the part affected in form of a cataplasma.

D 1

plasm. These decoctions make an excellent Semicupium; give them also in clysters, with two ounces of honey of *Nymphaea*. The syrup of *Althaea*, according to the description of M. *Charas*, is of great use: Dog's-grass, Pellitory, *Asparagus*, and the other plants mixed with it, sharpen the Marsh-mallow a little, and make the syrup proper to provoke urine, and promote expectoration. It was with this intention that the *Iris* of *Florence* was used in the lozenges of Marsh-mallows. M. *Lemery* who has made an excellent choice of the best compositions, and reformed them with a great deal of prudence, quickens these lozenges with the flowers of Benjamin. See his universal dispensatory. These are preferable to those which they call simple lozenges of Marsh-mallows: for this plant has need of something to stimulate it. Thus *Quercetan* very judiciously has mixed in his lohoch of Marsh-mallows, the flowers of sulphur, the powder *Diaireos*, &c. To render the ointment of the *Althaea* more resolvent, they have added very properly Fenugreek, Squill, Galbanum, and M. *Lemery* substitutes, not without reason, the Gum Ammoniac to that of *Ivy*. The camphorated spirit of wine may be mixed also with it, when it is given for the sciatica and rheumatism: for the same reason the mucilage of *Marsh-mallows* made with the seeds of *Fenugreek*, is preferable to that which is simple, because

because it resolves by removing the inflammation; one ought to put this seed in the poultis of Marsh-mallows and milk, to dissipate or suppurate tumours, according to the disposition of the humour: the cataplasms prepared with the roots of this plant, those of the Lillies and Onions, together with the four meals, are very good for the same tumours; especially if the camphorated spirit of wine, the spirit of *sal ammoniac*, or some other spirituous liquor is mixed with them. We need not conclude with M. *Seget*, * that the roots of Marsh-mallows are acrid, because several red and painful pustules have appeared on the part where this herb has been applied in cataplasms. It is more likely that the obstructed matter of transpiration produce these pustules.

1. ALYSSON incanum, luteum Serpylli folio, majus Inst. 217. Thlaspi minus quibusdam, aliis Alysson minus J. B. 2. 928. Thlaspi Alysson dictum, campestre majus C. B. Pin. 107. Alysson minimum Clus. Hist. cxxxiii.

CLUSIUS's figure is good; but he is mistaken in the description of the flower, which is tetrapetalous, and not pentapetalous, as he affirms: the figure which † *Lobel* and § *Tabernaemontanus* have given of this plant, under the name of *Thlaspi Polygonati folio*,

* Tourn d'Allemag. 9 & 10 Obs. 100. † Icon. 213.
§ Icon. 459.

is bad ; I believe they have put through inadvertency *Polygonati*, for *Polygoni folio* : the last of these authors has given a second figure of it, which is much better, and which he calls *Thlaspi minus Clypeatum II.* The difference of these figures has determined *C. Baubin* to divide this plant into two species, great and small ; * *Morison* has followed him in this point : it is true that the plant varies according to the place where it grows ; but we must distinguish them no otherwise than as varieties ; for the seed of the smaller, sown in gardens, produces a pretty large plant. *J. Baubin* observes that *Schwenckfeltius* confounds this plant with the *Thlaspi angustifolium* of *Fuchsius*, which is the *Nasturtium sylvestre Osyridis folio*, *C. B. Pin.* 105.

2. ALYSSON incanum, Serpylli folio, minus *Inst.* 217. *Thlaspi Alysson dictum, campestre minus C. B. Pin.* 107.

THIS is but a variety of the former.

3. ALYSSON vulgare, Polygoni folio, caule nudo *Inst.* 217. *Bursa pastoris minor, loculo oblongo C. B. Pin.* 108. *Bursa pastoria minima, oblongis filiquis, verna, loculo oblongo J. B. 2. 937. Paronychia vulgaris Dod. Pem.* 112. *Common Whitlow-grass.* It is very common on walls and in dry places, in the spring. *Dr. Dillenius* has observed very well, that the petals are bifid, which is a singular character in the tribe, to which it belongs.

* Hist.

THIS plant appears to me very different from that which * *Caesalpinus* calls *Humilis quaedam herbula*, *affinis Bursae pastoris*, *foliolis Thymi rotundioribus*, *candicantibus*, *subhirsutis*, &c. He describes it to grow common in *Sicily* and about *Piombino*. *C. Bauhin* was in the wrong to refer it to this, the leaves of which vary in their incisures; but are always very different from the figure of those of *Thyme*: these varieties are represented in the § *Hist. Lugd.* The *Paronychia Alfine folio Lobelii Lugd.* represents them without incisures: the same leaves are cut in the figure of the *Myosotis parva Dalechampii Lugd.* 1318.

4. ALYSSON segetum, foliis auriculatis, acutis *Inst.* 217. *Myagrum sativum* C. B. *Pin.* 109. *Myagrum dictum Camelina* J. B. 2. 892. & *Myagrum Turcicum ejusd.* 2. 837. *Camelina* five *Myagron* *Dod. Pemp.* 532. *Gold of Pleasure.* It is usually found where flax is sown.

DODONAEUS is in the wrong to compare this plant to the Madder. The *Myagrum sativum* is no more like the figure of the *Myagrum* 1. *Tabern.* than like the *Myagro similis*, *siliqua rotunda* *Pin.* It's not ill represented in † *Camerarius*, fig. 1. though ill engraved by him under the name of *Pseudo*

* 366,

§ 1214.

† *Cam. Epit.* 902 & 901.

myagrum; that figure, being only a copy from *Matthiolus*, has the fruits very ill drawn and flowers pentapetalous; which does not belong to any of the cross-like flowers.

5. ALYSSON perenne, montanum, incanum Inft. 217. *Thlaspi montanum*, luteum J. B. 2. 929.

It's root is fibrous, white, five or six inches long, about two lines thick: it usually sends forth three or four stalks lying on the ground, seven or eight inches long, hard, woody, reddish towards the bottom, wreathed, divided from the very bottom into several small branches, covered with a white down, and garnished with leaves of the same colour: their surface is a little shagreened, and they are shaped something like Olive leaves, according to *J. Baubin*; but they are but about five lines long: the young leaves are much whiter than the rest, more serrated, and shorter. The flowers grow at the extremity of the branches, in a kind of head, and afterwards part upon a kind of spike two or three inches long. Each flower is composed of four yellow petals, two lines long, almost oval at the end; the chives are very slender, charged with yellow summits: the empalement also consists of four narrow, pointed leaves, a line and a half long, and soon falling off: out of the middle arises a flat, round pointal, ending in a pretty fine point; it afterwards becomes a
fruit

fruit of the same shape, about two lines diameter, raised in form of a little boss, divided into two cells by a membranous partition: there are usually in each cell two oval, flat, red seeds, a line long. The figure of the *Thlaspi montanum luteum* J. B. represents this plant well enough, only the petals are too much cut; and besides, J. Baubin has not noted whether it be perennial or annual. Our plant lasts several years. That which M. Magnol* has called *Thlaspi Alysson dictum minus, capsulis majoribus, rotundis, non foliatis*, is annual, and its stalks are less crooked: thus J. Baubin's figure suits it less, than it does that which we just now described; and this figure is much better than that which Lobel† has given of it, under the Name of *Thlaspi supinum, luteum*. The capsules of these plants appear, only because the leaves of their empalements fall off easily.

6. ALYSSON *Myagrum sylvestre* C. B. Pin. 109. *Pseudomyagrum* 1. Cam. Epit. 902. *Myagrum Turcicum* J. B. 2. lib. 21. 893. *Myagrum minoribus capitulis seu sylvestre* Moris. Hist. 2. 316. *Vaill.* 11.

WE must not confound this Plant, as some have done, with the *Myagrum sativum* C. B. Pin. 109. which has bigger heads and seeds. *Ibid.*

* Bot. Monsp.

† Lob. Icon. 220.

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1. AMANITA campestris, alba superne, inferne rubens *Dillen. Cat. Giff. 177.* Fungus pileolo lato, & rotundo, livido C. B. Pin. 370. Fungus campestris, albus superne, inferne rubens J. B. 3. 824. Fungi vulgarissimi, esculenti Lob. Icon. 271. *Champignon.* Common in pastures. M. Vaillant has repeated this in p. 75.

2. AMANITA Kremlinga alba *Dillen. Cat. Giff. 178.* Fungus pileolo lato, orbiculari, candicante C. B. Pin. 370. Fungus sylvarum, esculentus candicans J. B. 3. 828. *With the former.* M. Vaillant has repeated this in p. 75. under the name of Fungus totus albus edulis.

3. AMANITA verna, pileo rotundiori, odorato & esculento. Fungi verni, Mouceron dicti, odori & esculenti J. B. 2. 823.

4. AMANITA alba, pileo inverso. Fungi albi, pileolo inverso J. B. 3. 847.

5. AMANITA lutea, perniciofa. Fungi lutei, perniciosi, sub Pinu habitantes J. B. 3. 832.

THIS is engraved in the *Elemens de Botanique*, Tab. 328.

6. AMANITA piperata, alba, lacteo succo turgens *Dillen. Cat. Giff. 179.* Fungus piperatus, albus, lacteo succo turgens. J. B. 3. 825. Fungi pileolo lato, orbiculari, candicante C. B. Pin. 370. *The Pepper-mushrome.*

FOUND by Dr. Lister in Marton woods under Pinno moor in Craven, Yorkshire, plentifully.

tifully. *R. Syn. Ed. 3. p. 4. I have found it near Dulwich, about the end of October.*

7. AMANITA major, rubescens aut subfulva, pediculo brevi, lamellis crebris, al-bentibus *Dillen. Cat. Giff. 181. Fungus lignosus, fasciatus. Vaill. 61.*

UNDER oaks in *August. R. Syn. Ed. 3. p. 4.*

THE stalk is about an inch in length, and as much in thickness, of a dirty white colour, full and fleshy. The head is about three inches in diameter, hollowed, reddish, with whitish circles. The Gills are set pretty close to each other, and are white, as is also the flesh. It yields a glutinous and acrid milk. *Vaill.*

8. AMANITA major, lactescens, pileo ex albo purpurascente, lamellis crebris, caule brevi. Fungus lacteus, maximus, infundibuli forma. *Vaill. 61.*

THIS resembles pretty much the two preceding ones. The edges are at first turned down, but afterwards raise themselves so as to form a kind of funnel, from three to nine inches in diameter. The head, flesh and gills are white, with a little wash of purple. The gills are very close and intermixed with shorter, and as it were half gills. The stalk is about an inch long, and from half an inch to an inch thick. The whole Plant abounds with a very acrid milk. *Vaill.*

9. AMANITA *major, lactescens, pileo subfusco, lamellis fulvis, caule brevi.* Fungus lactescens, praegnantissimus. Vaill. 61.

ITS head is flat and a little hollowed at the centre, two or three inches in diameter, of a very dirty white colour, inclining to a box colour, unequally indented about the edges with rounded divisions. It is exceedingly full of acrid milk. Vaill.

10. AMANITA *lactescens, fulva.* Fungus lactescens, piperatus, rufus. Vaill. 62.

THE head, gills and stalk are of a reddish or copper colour. It yields an acrid milk. Vaill.

11. AMANITA *major, pileo subfusco, lamellis albis.* Fungus piperatus non lactescens. Vaill. 62.

THE flesh of this has an acrid taste, but yields no milk. Vaill.

12. AMANITA *fasciculosa, purpurascens, arborea* Dillen. Cat. Giff. 180. Fungus nostras, pediculo brevi, in pileolum didymum abeunte Cimel. Reg. Vaill. 62.

THE head is of a bright and shining chestnut colour, the gills yellowish, and the edges turn down. Vaill.

13. AMANITA *major, palustris, albida.* Fungus albidus, infundibuli forma, palustris. Vaill. 62.

14. AMANITA *pileo flavo, viscido, caule rufescente.* Fungus glutine flavo, limacino resplendens. Vaill. 62.

THE head is of a conick figure at first, and afterwards expands, so as to become two or three inches in diameter. *Vaill.*

15. AMANITA *major*, *pileo griseo, holosericeo, lamellis carneis, caule albo.* Fungus *griseus, holosericeus, pileolo crenelato.* *Vaill.*
63.

THE head is sometimes five inches in diameter, turned up at the edges like a saucer. The stalk is two or three inches long, and about an inch thick. *Vaill.*

16. AMANITA *citrini coloris* *Dillen. Cat. Giff. 181.* Fungus *pileolo stramineo.* *Vaill.*
63.

17. AMANITA *media tota alba.* Fungus *mediae magnitudinis, totus albus.* *Vaill. 63.*

THE stalk is from an inch to three inches in height, soft, usually full, and sometimes fistular, thicker at the top than at the bottom, sometimes strait, and sometimes wreathed; sometimes round, and sometimes a little flat, with a furrow on each side, from one to three lines thick. The head is from four to eighteen or twenty lines in diameter, cut at first into a hemisphere or cone, which afterwards growing flat, forms another cone, inverted. The gills are very far distant from each other, but the spaces are filled with half and quarter gills, proceeding from the circumference. The whole plant is milk white, and a little shining. *Vaill.*

18. AMA-

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18. AMANITA pileo gilvo, lamellis albis, crebris, superne ad margines apparentibus, caule albido. Fungus gilvus, margine tenuissimo. Vaill. 63.

19. AMANITA pileo coniformi, albo, maculato. Fungus pileolo conico, maculato. Vaill. 63.

20. AMANITA plana, orbiculata, aurea Dillen. Cat. Giff. 179. Fungus planus orbiculatus aureus C. B. Pin. 371. Fungi lutei magni, dicti Jaferan, speciosi J. B. 3. 831.

FOUND in *Hornsey* wood by Dr. Dillenius. Syn. Stirp. Brit. Ed. 3. p. 2.

21. AMANITA purpurascens, pileo sursum repando caule albo. Fungus margine per maturitatem sursum rependo. Vaill. 64.

22. AMANITA orbicularis, pileo & lamellis fuscis Dillen. Cat. Giff. 184. Fungus laete fusco colore. Vaill. 64. I have found this near Dulwich, in October.

23. AMANITA pileo fusco, lamellis & caule albis. Fungus laete fusco colore, pediculo brevior. Vaill. 64.

24. AMANITA clypeiformis, major. Fungi multi ex uno pede clypeiformes, lutei & rubri J. B. 3. 835.

25. AMANITA clypeiformis, minor. Fungus clypeiformis, minor. C. B. Pin. 373. Fungi parvi, lutei, & clypeiformes, albi, lethales J. B. 3. 847.

26. AMANITA fasciculosa, viscida, arborea, mollis, alba Dillen. Cat. Giff. 187. Fungi albi

albi lucentes ex uno principio plures ex radicibus arborum J. B. 3. 835.

27. AMANITA fasciculosa lutea dumetorum *Cat. Giff.* 186. Fungi multi, ex uno pede, perniciosi J. B. 3. 835. *I have counted above a thousand of these from one root. M. Vaillant has repeated this Amanita in p. 68. under the name of Fungi plures ex uno pede, e prunorum radicibus enati Raii. Hist. 1. 99. app. 32. 8. Fungus, multiplex, parvus, luteus, pileolo molliter convexo. Cimel. Reg. and again in p. 71. under the same name, where the whole description is also repeated.*

28. AMANITA colore lacteo. Fungus colore lacteo. *Vaill.* 64.

29. AMANITA piperata, non lactescens, viscida, pileo ex fusco rufescente, lamellis & caule albis. Fungus piperatus, non lactescens, coloris brasiliici. *Vaill.* 65.

30. AMANITA obtuse coniformis, cinerea aut ex livido nigricans, utrinque striata *Dillen. Cat. Giff.* 182. Fungus parvus, pediculo oblongo, galericulatus, striis lividis aut nigris Raii Syn. *Vaill.* 65. *In pastures on dung, in September and October Syn. Ed. 3. p. 8.*

31. AMANITA pileo albo, centro rufescente, lamellis carneis, caule albo. Fungus pileolo albo, centro rufescente. *Vaill.* 65.

32. AMANITA parva, pileo viscoso, ex albido luteo, lamellis lividis, caule longo. Fungus capite hemisphaerico, pallide lutescente. *Vaill.* 65. *It is common on cow-dung and horse-*

horse-dung, in September and October. M. Vaillant seems to have repeated this Fungus in p. 71. under the name of Fungus parvus, pediculo oblongo, pileolo hemisphaerico ex albido subluteus Raii Syn.

33. AMANITA parva verna, utrinque striata fusca, pileo obtuse coniformi, musco palustri, ramoso majori, foliis membranaceis, acutis Vern. innascens *Dillen. Cat. Giff. 184.* Fungus capitulo conico, pallide cineritio, centro fusco. *Vaill. 65.*

34. AMANITA tota alba. Fungus totus albus. *Vaill. 65.*

35. AMANITA tota grisea. Fungus totus griseus. *Vaill. 66.*

36. AMANITA fasciculosa, sordide carnea. Fungus multiplex sordide carneus. *Vaill. 66.*

37. AMANITA fasciculosa, buxæ *Dillen. Cat. Giff. 187.* Fungus nostras, multiplex, pileolo lato, mammoso. *Vaill. 66.*

38. AMANITA exigua, sanguinei coloris *Dillen. Cat. Giff. 66.* Fungus parvus coccineus *Cimel. Reg. Vaill. 66.*

39. AMANITA exigua pileo umbilicato, nigro, lamellis nigricantibus. Fungus minimus, totus niger, umbilicatus. *Vaill. 66.*

40. AMANITA minor, umbilicata, tota rufa. Fungus minor, totus rufus. *Vaill. 66.*

41. AMANITA minor tota citrina. Fungus minor, citrino colore, pedunculo flavescente. *Vaill. 66.*

42. AMANITA minor, pileo villoso, fusco; lamellis ex cinereo purpurascens; caule fusco. Fungus minor, pilei superficie flocculis fuscis villosa. Vaill. 67.

43. AMANITA parva, capitulo conico, violacei dilutioris coloris Dillen. Cat. Giss. 181. Fungus minor Amethystinus. Vaill. 67.

44. AMANITA fasciculosa, ex fusco violacei coloris Dillen. Cat. Giss. 186. Fungus major, violaceus. Vaill. 67.

45. AMANITA pileo incarnati coloris, lamellis albidis, caule albo, ad imum tuberoso. Fungus dilute carneus, vel incarnatus. Vaill. 67.

46. AMANITA major, pileo pallide violaceo, lamellis & caule candidis. Fungus magnus, albus, pileolo lato, prona parte sordide caeruleo. Vaill. 67.

47. AMANITA pileo aurantii coloris, lamellis & caule lividis Hist. Plant. rar. Cent. 1. Dec. 3. p. 31. Fungus aurantii coloris, capitulo in conum abeunte Inst. 559. Near Fulborn in Cambridgeshire.

THIS is of a red orange colour, and its head is a perfect cone.

48. AMANITA pileo conico, aureo, viscido, lamellis pallide flavis, caule aureo. Fungus aureus, capitulo in conum abeunte. Vaill. 67.

49. AMANITA ex livido albicans, oris intus conversis Dillen. Cat. Giss. 182.

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Fungus colore castaneo, margine per maturitatem introrsum convoluto. *Vaill.* 68.

50. AMANITA minima, pileo & lamellis cinereis, caule fusco, conico. Fungus minimus, pediculo conico. *Vaill.* 68.

51. AMANITA pileo clypeato rufescente, lamellis & caule cinereis. Fungus clypeatus, in medio protuberans. *Vaill.* 68.

52. AMANITA parva, utrinque striata, pileo coniformi, murini coloris, lamellis & pediculo albis *Dillen. Cat. Giss.* 183. Fungus capitulo mammoso, centro papillari. *Vaill.* 69. *It is found in pastures in autumn. This seems to be the same with what M. Vaillant has called in p. 69.* Fungus pileolo candicante lamellis paucis, pediculo fusco splendente.

53. AMANITA exigua, incarnati coloris. Funguli incarnati coloris, minuti, musco innati *Mentz. pugill. Tab. 6. Vaill.* 69.

54. AMANITA parva, utrinq; striata, pediculo tenui, longo, firmo, lento, pileolo in medio fastigiato *Dillen. Cat. Giss.* 183. *In pastures.*

55. AMANITA ochro-leuca viscida pileo clypeiformi. Fungus colore homoganeo pallido, pileolo & pediculo glutine obducto. *Vaill.* 69.

56. AMANITA grisea, viscida, pileo clypeiformi. Fungus colore homoganeo, griseo, pediculo glutine obducto. *Vaill.* 69.

57. AMANITA arborea, mollis, coloris exacte crocei *Dillen. Cat. Gifs. 182.* Fungus pileolo croceo, splendoris particeps. *Vaill. 69.* On trees and rotten Wood.

58. AMANITA viscida pileo expanso, sordide albo, lamellis candidis, caule solido. Fungus capite expanso, viscosus. *Vaill. 70.*

59. AMANITA viscida, pileo primum conico, postea plano. Fungus cono primum obtuso, postea plano, pileolo & pediculo glutine obducto. *Vaill. 70.*

WHEN this is young, the head of it is usually of a dirty white, and the top of a box colour. Sometimes it is of a dark green, and sometimes of a russet. The stalk and gills of this last are of the same colour with the head, but the gills of the white and green are usually of a brimstone colour, and sometimes washed with a little green. The stalk also is of a brimstone colour, with a tinge of verdegris towards the top. *Vaill.*

60. AMANITA pileo obtuse coniformi, è cinereo fulvo, lamellis albidis, caule longo, firmo, striato, gracili, castanei coloris. Fungus fimi equini, capitulo pileum Romanum referente. *Vaill. 71.* It has been found in woods in England by Mr. Dale.

61. AMANITA pileo cinereo utrinq; striato caule longo, fistuloso. Fungus capitulo mammoso. *Vaill. 70.*

62. AMANITA fasciculosa, pileo obtuse coniformi, utrinq; striato, pallido; lamellis nigris, caule albo, fistuloso. Fungus nostras, multiplex, pediculo fistuloso, Vaill. 70. I have often found this about the latter end of Summer; it soon rots; and is perhaps the same with that mentioned by Dr. Dillenius (Syn. 7.) under the name of Fungus parvus, lethalis, galericulatus, Lob.

63. AMANITA fasciculosa, pileo ex luteo fusco, lamellis virentibus, caule pallido. Fungus mediae magnitudinis, pileolo superne è rufo flavicante, lamellis subtus fordide virentibus Raii Hist. 3. 17. Fungus luteus, pileolo molliter convexo, lamellis viridibus Cistel. Reg. Vaill. 71. I found this on rotten wood in the Apothecaries Garden at Chelsey in October.

64. AMANITA exigua, candidissima, pileo umbilicato. Fungus minimus albus, umbilicatus, striatus. Vaill. 71.

65. AMANITA fasciculosa, pileo obtuse conico, griseo, lamellis albis, caule griseo. Fungus multiplex, obtuse conicus, colore griseo murino. Vaill. 71.

66. AMANITA pileo viscoso, luteo Hist. Plant. rar. Cent. 1. Dec. 3. p. 31. I suspect this to be the same with that which M. Vaillant describes under the name of Fungus glutinosus colore aurantio p. 72. The plant, which I mean, is very common in pastures in Autumn.

67. AMANITA ovum referens, humorem nigrum per maturitatem effundens. Fungus Typhoides. An Fungus non vescus 7. Flor. Prufs. 89? An Fungus albus ovum referens D. Doodii, Raii Hist. 3. 22? Vaill. 72. On a moor betwixt Rood-Lane and Somerset-bridge in Hampshire, Mer. Pin. I have seen it in great plenty at Chesterton in May.

68. AMANITA fasciculosa, ovum referens, minor, humorem nigrum per maturitatem effundens. Fungus multiplex ovatus, cinereus, minor. Vaill. 72.

69. AMANITA orbicularis alba, lamellis & pediculo villosis, ac veluti farina conspersis Dillen. Cat. Gifs. 184. An Fungus minor tenerrimus, farina respersus, pileolo superne cinereo, lamellis subtus tenuissimis, nigris Raii Syn? Vaill. In pastures in September and October.

70. AMANITA fusca, pileo infundibuliformi. Fungus foliaceus vel lamellatus infundibuli forma, fusco-lividus. Vaill. 73.

71. AMANITA fasciculosa, pileo fusco, lamellis & caule griseis. Fungus multiplex, campaniformis, colore fusco. Vaill. 73.

72. AMANITA fasciculosa, pileo & caule castanei coloris, lamellis ex sordide albo pallide rubentibus. Fungus multiplex, campaniformis, colore castaneo. Vaill. 73.

73. AMANITA fasciculosa, pileo rufescente, margine araneoso, lamellis crebris, fuscis,

caule albo, fistuloso. Fungus capitulo mammoso, rufescente. *Vaill.* 73.

74. AMANITA *fasciculosa, pileo ovato, sulcato, cinereo lamellis crebris, lividis, caule albo.* Fungus multiplex, ovatus. *Vaill.* 73.

75. AMANITA *ficca & levis, pileo magno plano, orbiculari, pediculo longo, plerumq; bulbiformi Dillen. Cat. Gifs. 180.* Fungus pileolo lato, longissimo pediculo, variegato C. B. Pin. 371. *Vaill.* 74.

OBSVEERD frequently in *England* by Dr. *Lister*, as in *Chesterton-Close* near *Cambridge*, and in the woods in *Lincolnshire*; who also experienced it, in eating, to be more savoury than the *Champignon*. *R. Syn. Ed. 3. p. 3.*

76. AMANITA *pileo lato, rufescente, micis furfuraceis asperso, lamellis albis, caule tuberoso.* Fungus pileolo lato, micis furfuraceis asperso. *Vaill.* 74.

77. AMANITA *pileo virescente, ex pila erumpens.* Fungus phalloides, annulatus, sordide virescens & patulus *Cimel. Reg. Vaill.* 74.

78. AMANITA *pileo lato, albido, lamellis candidis, ex pila erumpens.* Fungus phalloides. *Vaill.* 74.

79 AMANITA *pediculo bulbiformi, pileo maculato Dillen. Cat. Gifs. 184.* Fungus pediculo in bulbi formam excrecente C. B. Raii Hist. 1. 95. *Vaill.* 75.

80. AMANITA *pileo lato puniceo, lamellis albis.* Fungus pileolo lato, puniceo, lacteum &

& dulcem succum fundens C. B. Pin. 371. Vaill. 75.

81. AMANITA pileo candido, tuberculis flavo-fuscis variegato, lamellis creberrimis. Fungus colore candido, tuberculis flavo-fuscis elegantissime variegato. Vaill. 75.

82. AMANITA pileo clypeato, castaneo, centro rufo, circulo sordide albo circumdato, lamellis creberrimis, flavescentibus. Fungus centro mammoso, rufo, circulo sordide albo circumdato. Vaill. 76.

83. AMANITA minima, pileo aurantii coloris, lamellis ex albo rufescentibus. Fungus minimus, aurantius, mamillaris. Vaill. 76.

1. AMMI perenne Mor. Umb. Ammi quorundam Dalechampii Lugd. 696. Crithmum quartum Matthioli, umbelliferum J. B. 3. part. 2. 195. Eryngium quartum Dod. Pempt. 732.

2. AMMI majus C. B. Pin. 159. Ammi vulgare, majus, latioribus foliis, femine minus odorato J. B. 3. part. 2. 27. Ammi vulgare Dod. Pempt. 301.

Its seeds are used in carminative decoctions.

3. AMMI majus, foliis plurimum incis & non nihil crispis C. B. Pin. 159.

ANACAMPSEROS purpurea J. B. 3. 682. Telephium purpureum, majus C. B. Pin. 287. Telephium floribus purpureis, Lob. Icon. 389. Orpine or Live-long. Under hedges; also in corn fields and pastures.

COLUMNA has confounded his *Rapuntium umbellatum* with the *Telephium floribus purpureis* Lob. C. Baubin is guilty of the same fault; but it is easy to see, by Columna's description, and by his figure of the Flowers, that he has given a good design of the *Trachelium azureum, umbellatum* Ponaë Bald. Ital. 44.

THE leaves of the *Orpine* have a glutinous acidity, and give a strong red tincture to the blue paper. * This plant being analys'd, yields a good deal of acid, a moderate proportion of earth, and oil, and a pretty deal of volatile, concrete Salt. Thus there is room to believe that it contains an aluminous salt, mixt with *Sal Ammoniac*, and wrapt up in a little Sulphur. It is deterfive, astringent, and vulnerary. Being applied externally, it hastens the suppuration of tumours.

1. ANAGALLIS phoeniceo flore, C. B. Pin. 252. Anagallis phoenicea, mas, J. B. 3. 369. Anagallis mas Dod. Pempt. 32. *Male Pimpernel.* In corn fields about midsummer.

2. ANAGALLIS caeruleo flore C. B. Pin. 252. Anagallis caerulea, foemina J. B. 3. 369. Anagallis foem. Dod. Pempt. 32. *Female or blue-flowered Pimpernel.* This,

* Extract of the registers of the royal Academy of Sciences.

however common in foreign countries, is very rare in England. Dr. Fysher has found it near Peckham.

J. BAUHIN took the flower of this plant to be pentapetalous, and its fruit to be like that of the *Chickweed*: but *Caesalpinus* knew the structure of its parts better, for he affirms, (not without reason) that the flower of the *Pimpernel* is only divided into five segments, and that its spherical fruit loses half its shell when the seed is ripe.

THE *Pimpernel* has an herby, stiptick, saltish taste, and gives a deep tincture of red to the blue paper: the fruit gives it a deeper: so that it is probable that it's salt may very much resemble the *Terra foliata Tartari Mulleri*. *Tragus* says, a glass of the decoction of *Pimpernel* in wine, is a potent sudorifick, if the patient lie still in bed, so as not to interrupt the sweat. In pestilential cases he also advises to wash the wound with it upon the being bitten by a viper or mad-dog, drinking a glass of it at the same time: instead of the decoction of *Pimpernel*, the juice may be used, which he commends for the dropsy, and for the obstructions of the liver and kidneys, out of which it expels the Stone without any ill consequence. *Hartman*, *Mynsicht*, *Rolfincius*, *Michael*, *Willis*, and several others, very much commend the decoction of this plant, or it's tincture in the spirit of wine, in madness,

or

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or the delirium that attends continued fevers: The extract has the same virtues; it may be mixt with that of *St. John's-wort* for the epilepsy. *Simon Paulli* mentions the cataplasm of *Pimpernel*, boiled in urine, and applied to the feet of those who have the gout, as a remedy very much used in his country.

3. *ANAGALLIS paludosa, minima, foliis rotundis, alternatis.* Centunculus Eph. Nat. Cur. Cent. 506. App. & Dillen. Cat. 161. & App. 111. Nov. Gen. Plant. *Alsine palustris minima, flosculis albis, fructu Coriandri exiguo* Mentz. Pug. Tab. 7. *Anagallis spuria, sive minima arvensis, tetrapetaloides* Flor. Jenens. 20. *Vaill.* 12.

IN a dale, just before *Chiselhurst*-common. *Syn. Stirp. Brit.*

THE empalement is cut to the base into four equal parts. The fruit is spherical, but terminated by a little point, to which the withered flower adheres strongly. This fruit opens transversely into two hemispheres, and incloses seven or eight brown seeds, adhering to a *Placenta*. It flowers about the middle of *June*, and in *July* and *August*. *Vaill.*

ANBLATUM Cord. Hist. 89. *Orobanche radice dentata, major.* C. B. Pin. 88. *Toothwort.*

It flowers about the latter end of *April* and beginning of *May*. It has been observed in

in a shady lane, not far from *Darking* in *Surrey*; at *Bredgate* near *Sittingborn*, about *Chiselhurst* and *Maidstone* in *Kent*; near *Dalston* in *Westmoreland*; and *Heptonstal* in *Yorkshire*. *Syn. Stirp. Brit.* 288.

ANDROSAEMUM maximum, frutescens C. B. Pin. 280. *Siciliana* aliis *Ciciliana*, vel *Androsaemum* J. B. 3. 384. *Androsaemum* Dod. Pempt. 78. *Tutsan* or *Park-leaves*. In *Wimbleton-Park*, and in the hedge of a lane between *Highgate* and *Muswell-Hill*.

THE author of the *Hist. Lugd.* has given two figures of this plant, one of which is taken out of the *Latin* edition of *Dodonaeus*, and the other out of his *Dutch* edition, translated into *French* by *Clusius*.

I. ANGELICA sylvestris, minor, five erratica C. B. Pin. 155. *Angelica sylvestris*, repens J. B. 3. part. 2. 145. *Aegopodium*, *Herba Gerardi* Tabern. Icon. 83. *Herb Gerard*, *Gout-weed*, or *Ashweed*. It is common under hedges of gardens; where it's creeping roots make it exceedingly troublesome.

EA mihi nihil aliud videtur esse quam vitium quoddam *Angelicae*, says *Tragus*: Nevertheless it is most certainly a species of *Angelica*, very different from all the rest, especially from the wild one, which is a species of *Imperatoria*. * *Pena* and *Lobel*

* Adv. 311.

affirm, that this plant has nearly the same virtues with the *Dwarf-Elder*; that it is used for the gout; and that from thence it is called *Podagraria*. *Schwenckfelt* says, it is vulnerary: He recommends the infusion of this plant in wine, for intermitting fevers.

2. ANGELICA pratensis, Apii folio Inst. 313. Sefeli pratense, Silaus forte Plinio C. B. Pin. 162. Silaum quibusdam, flore luteolo J. B. 3. part. 3. 170. Siler alterum, pratense Dod. Pempt. 320. *Meadow Saxifrage*. Common in moist meadows and pastures.

J. BAUHIN thought this plant to be the same with the *Foeniculum sylvestre Loniceri Lugd.* * If so, it is twice in that history; for it is called also in the same book *Sefeli pratense Lobelii*.

THE flower is of a dirty white, inclining to yellow, it has five petals, almost equal and entire: They are hooked at the end, which makes them seem to be notched. *Vaill.*

3. ANGELICA pratensis, Apii folio, altera Inst. 313.

1. ANONIS spinosa, flore purpureo C. B. Pin. 389. Anonis, five Resta Bovis vulgaris J. B. 2. 395. Anonis, Ononis, Resta Bovis Tabern. Icon. 528. *Restharrow, Cammock, Petty-whin*. Common in barren and uncultivated places.

* Lugd. 689, 752.

TABERNAEMONTANUS'S figure is the best, tho' it does not represent the leaves of the Restharrow disposed by threes: *Dodonaeus* was in the right to say, that the flowers of this species are seldom yellow; and even that variety with yellow flowers, which * *Pena* and *Lobel* observed in the meadows about *Bristol* and *London*, should not be very common there, since Mr. *Ray* does not so much as mention it.

THE Restharrow gives a faint tincture of red to the blue paper; it's leaves are of a leguminous taste, they have an ill scent, and are a little glutinous; which makes me believe that their salt resembles the vitriolated tartar, clogged with a phlegm which is thickened with a great deal of earth and sulphur: Thus all authors agree, that this plant is aperitive, and very diuretick: It's roots are prescribed in ptisans, broths, and apozemes: They distill the water of the whole plant, when it is in flower; all these preparations are excellent for the jaundice, stone, suppression of the menses, and inflammation of the piles. Some infuse two drams of the bark of the root of *Restharrow* in a glass of white wine, and give it to drink in a nephritick colick, when there is occasion for diureticks. They pretend that a dram of the powder of this root, taken in

* Adv. 371.

ordinary broth, is very good for carnosities. *Matthiolus* himself, and several practitioners after him, affirm, that it is an excellent remedy for the *Sarcocoele*. The decoction of the whole plant is very deterfive, and useful in the scurvy to wash the mouth and cleanse the gums.

2. ANONIS viscosa, spinis carens, lutea, major C. B. Pin. 389. Anonis lutea, non spinosa, Dalechampii Natrrix J. B. 2. 393. Anonis lutea Cam. Epit. 444.

CAMERARIUS's figure is good: We must not separate from this, the *Anonis lutea, non spinosa Natrrix Plinii Herbariorum* * *Lugd.* for *J. Baubin, Pena, Lobel, and Camera-rius*, describe it to grow about *Montpelier*. Now that which is found there is the same with that which grows about *Paris*: It has the standard of its flower striped with purple lines: That of which the author of the *Hist. Lugd.* speaks, was probably not more striped.

3. ANONIS flore luteo parvo H. R. Par. Anonis lutea, sylvestris, minima Col. part. 1. 301. Ononis minor, flore luteo Brofs. Anonis floribus exiguis, luteis Joncq. Hort.

COLUMNA has described this species well; but his affirming, that the points of it's empalement are a little stiff, did not give suffi-

* *Lugd.* 449.

cient reason to C. Bauhin to call it, *Anonis spinosa lutea*, major Pin. 389.

4. ANONIS spinosa flore pallide purpureo. Vaill.

5. ANONIS spinosa flore albo C. B. Pin. 389. Anonis seu Aresta Bovis vulgaris spinosa, alba J. B.

6. ANONIS spinosa, fruticosa, erecta, flore purpureo. Vaill. 13.

THIS is easily distinguished from the common Restharrow by its being always erect, by its stalks being much thicker and stiffer, fuller of leaves and flowers, and its spines being longer and stronger. The flowers are usually of a more lively red and larger; it is well enough represented in the Hort. Eyf. Tab. 263. under the name of *Anonis spinosa*. Ibid.

7. ANONIS spinosa, fruticosa, erecta, flore pallido.

8. ANONIS non spinosa, flore luteo, variegato C. B. Pin. 389. Riv. Ic. 2. Ononis flore luteo variegato, non spinosa Eyf. Tab. 262.

1. ANTIRRHINUM arvense majus C. B. Pin. 212. Antirrhinum sylvestre, Phyteuma Dod. Pempt. 182. Antirrhinum iv. Cam. Epit. 923. Antirrhinum angustifolium, sylvestre J. B. 3. 464. *The lesser wild Calves-snout or Snap-dragon. In corn fields in a sandy soil.*

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It flowers in *June* and *July*. It's flower is purplish, about half an inch long. It's empalement consists of five leaves, which encompass the greatest part of the flower. Each flower grows out of the bosom of a long leaf. *Vaill.*

2. ANTIRRHINUM arvense majus, flore albo H. R. Par.

3. ANTIRRHINUM vulgare J. B. 3. 462. Antirrhinum majus alterum, folio longiore C. B. Pin. 211. Antirrhinum Dod. Pempt. 182. *The greater Snap-dragon or Calves-snout. On garden walls.*

1. APARINE vulgaris C. B. Pin. 334. Aparine Dod. Pempt. 353. J. B. 3. 713. *Cleavers or Goose-grass. Common in hedges every where.*

THE figure which *Fuchsius* has given of it, is deficient, in that it's leaves are notched.

SIMON PAULLI affirms, that in *Denmark* they use the distilled water of this plant for the diseases of the breast, and for the vapours: Some give it to drink in the pleurisy.

2. APARINE latifolia, humilior, montana Inst. 114. Asperula seu Rubeola montana, odora C. B. Pin. 334. Rubiis accedens, Asperula quibusdam, five Hepatica stellaris J. B. 3. 720. Asperula odorata, flore albo Dod. Pempt. 355. *Woodroof. In woods and bushy places.*

J. BAU-

J. BAUHIN took the flowers of this plant to be tetrapetalous; they are certainly monopetalous.

THE flowers are recommended for the epilepsy and palsy. There is a conserve made of them, and a tincture drawn with spirit of wine. The infusion of the whole plant is aperitive, and strengthens the bowels.

THE leaves are broad. It flowers in *April* and *May*. The fruit is set with hairs, which end in a hook. The leaves are usually eight in number at each whirl. It flowers towards the latter end of *April* and *May*. The flower is milk white, four lines in diameter, cut into four segments, disposed in form of a cross. *Vaill.*

3. APARINE supina, pumila, flore caeruleo Inst. 114. Rubia parva, flore caeruleo, se spargens J. B. 3. 719. Rubeola arvensis, caerulea, repens C. B. Prod. 145. *Little Field Madder. In fallow fields.*

C. BAUHIN has described this plant well enough; only he was mistaken when he thought the flower to be pentapetalous: It is certainly monopetalous, divided into four segments. This plant is not ill-figured in the Hist. Lugd. * under the name of *Myagrūm alterum minus, Dalechampii*: So that we must not separate it from the *Asperula*

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hexaphyllos purpurea Pin. J. Baubin had no reason to suspect it to be the *Asterias* five *Stellaria* Lugd. for that author affirms, that the leaves of his plant are narrower than those of *Gallium*, whereas those of our plant are broader.

It flowers in *April, May, and June*. It's flower is about a line and half in diameter, and divided into four segments. This plant has one singularity, that it's flowers are gathered into a head, in a kind of common empalement, which is composed of several green leaves, forming a sort of star. This empalement incloses usually seven or eight flowers, succeeded by seeds, each of which is crowned with three or four points. *Vaill.*

4. *APARINE palustris, minor, Parisiensis, flore albo* Inst. 114.

ON the lower bog at *Chiselhurst*; Mr. J. *Sherard. Syn. Stirp. Brit. 225.* On *Gamlingay bogs, and other moist places about Cambridge.*

THIS plant has creeping, slender, reddish, hairy roots. It's stalks are about a foot high, square, grey, a quarter of a line thick, rough, and scarce able to sustain themselves. At each joint they have six or eight leaves, disposed in form of a radiant star, rough also, four or five lines long, one line broad, less sharp at the point than at that end which is next the stalk. Out of the bosoms of these leaves proceed usually some pretty short branches,

branches, which often are nothing but loose branches, loaded with white flowers, a line and half broad, cut into four segments, like those of the common Cleavers; and succeeded by two small, rough seeds.

5. APARINE vulgaris, femine minori Inst. 114. Aparine Camer. Epit. 557.

It flowers in *May*, *June*, and *July*. It's flower is white, divided into four equal parts. It's fruit is rough, with small, whitish hairs. It differs from the common one, in being much smaller in all it's parts, and in the number of it's leaves, which are usually eight in number, whereas the common one has but about six or seven. *Vaill.*

6. APARINE femine laevi H. R. Par. Aparine foliis brevioribus & femine laeviore H. Ox. 3. 332. Aparine femine laevi Park. 567. Aparine vulgaris, feminibus glabris Flor. Jen. *Common amongst the corn in Cambridgeshire.*

It's flower is divided into four equal parts, and is but about a line in diameter. It's root is a reddish fibre, about half a line thick at the neck, and sometimes divided. It's stalk is square, and encompassed with eight leaves at each joint. The whole plant is very rough, and sticks to one's cloaths. It is of a pale green colour. It is usually about eight or ten inches high; and flowers and seeds in *May* and *June*. It's fruit is only shagreened, by which it differs chiefly from the *Aparine*

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semine Coriandri saccharati Park. and by the surface of it's leaves, which are almost smooth. *Vaill.*

7. APARINE minima vel Rubia saxatilis minima Bot. Monsp. App. 291.

FOUND at Hackney on a wall by Dr. *Sherard*. At Eltham, on a wall going to the court, and in many other places; Mr. *J. Sherard*. *Syn. Stirp. Brit.* 225.

THE root is woody and reddish. The stalk is very much branched, cloathed with six or seven Leaves at each joint, two or three lines long, and about half a line broad. The flower is of a greenish purple colour, and not above half a line in diameter. The seeds are smaller than those of mustard, and smooth, though the stalk and leaves are a little rough. *Vaill.*

8. APARINE fegetalis, erecta, flore caeruleo. Gallium arvense flore caeruleo Inst. 115. Asperula caerulea, arvensis C. B. Pin. 334. Asperula hexaphyllos purpurea Ejusd. Ibid. *Vaill.* 15.

9. APARINE fegetalis, erecta, flore albo. Rubia alba, vel pallide erectior elatiorve Flor. Bat. 42. *Vaill.* 15.

APHACA Lob. Icon. 70. Vicia lutea, foliis Convolvuli minoris C. B. Pin. 345. Vicia quae Pitine Anguillarae, lata filiqua, flore luteo J. B. 2. 316. *Yellow Vetchling*. It is a common weed amongst the Corn in Cambridge-shire; but is seldom found about London.

APIUM

APIUM palustre & Apium officinarum C.
B. Pin. 154. Apium vulgare ingratius J.
B. 3. part. 2. 100. Eleoselinum Dod. Pempt.
695. *Smallage. By the sides of rivulets and
ditches, especially near the Sea.*

CORDUS justly observed, that the *Apium
sativum*, which is our *Celeri*, did not differ
from the *Smallage*, any otherwise than by
culture. This Plant is bitter, acrid, and
aromatick. It contains a great deal of oily,
volatile Salt, from which the *Sal Ammoniac*
is not quite disengaged, but dissolved in a
great deal of flegm, and united with a great
deal of earth. * By the chymical analysis,
it yields, beside several acid liquors, a great
deal of sulphur and earth, a pretty deal of
an urinous spirit, and a little concreted vo-
latile Salt. Thus it is no wonder that this
plant should be aperitive, diuretick, sudori-
fick, febrifugous, and vulnerary. Six ounces
of the juice of it's leaves given to drink in
the cold fit of an ague, will make the patient
sweat, if covered. One dram of the extract
of *Smallage* leaves, mixt with two drams of
the *Peruvian* bark, is a certain cure for a
quartan ague, and wheresoever there are
obstructions in the lower belly. In the
scurvy, the juice of *Smallage* is no less
efficacious than that of *Scurvy-grass*, to

* Extract of the registers of the royal academy of
sciences.

strengthen the gums, and cleanse the ulcers of the mouth. Cancerous and other ulcers may be bathed also with it. The root is one of the five opening roots, and made use of in aperitive ptisans, decoctions, apozemes, and syrups. The seed is one of the four lesser hot seeds. To draw the milk, boil equal parts of the leaves of Smallage and Mint in whey, strain it, and sprinkle it with Smallage seeds powdered.

It's flowers are white, consisting of five equal petals, almost round and hollow like a spoon. It's flowers are but a line in diameter. The umbels are sessile at the joints of the branches. It flowers in *July* and *August*. *Vaill.*

AQUIFOLIUM sive Agrifolium vulgo J. B. 1. 114. Aquifolium Dod. Pempt. 658. Ilex aculeata, baccifera, folio sinuato C. B. Pin. 425. *The Holly-tree. In hedges and bushy places.*

CAESALPINUS and *Dodonaeus* have observed, that the old Hollies quitted their prickles insensibly, and bore leaves like those of the Bay. There is a great Holly in the royal garden, and another in the cloister of the religious of *S. Denis*, on which there still remain some prickly leaves, but most of them are smooth. * *Gesner* observed

* Hort. Germ. 247.

such an one at *Paris* in the garden of S. *Genevieve*. *Ruellius* affirms, that they make bird-lime of the bark of this tree : * *Hujus cortices detrahunt*, says he, & *facto humi scrobe locis uliginosis maxime obruunt*, *frondibus arborum involventes* & *inibi putrescere patiuntur*, quod fere duodenis diebus fieri solet, tum marcidos eruunt, & tantisper pila tundunt, dum in viscum lentescant; demum in profluente, ut obhaerentes corticum reliquiae, sordesque fluitent, proluunt, & adjecto olei nucum momento, fœtilibus recondunt ad aucupia.

Mr. RAY has described the way of making bird-lime in *England*. *Dodonaeus* affirms, that the swallowing of ten or twelve Holly-berries will cure the colick. Mr. Ray says, he knew a lady, who, after having tried several remedies in vain, was cured by drinking ale-posset, in which the prickles of the leaves had been boiled. *Matthiolus* relates, that the decoction of it's roots is very emollient and resolving.

AQUILEGIA sylvestris C. B. Pin. 144: Aquilegia flore simplici J. B. 3. 484. Aquilegia Dod. Pempt. 181. *Columbines*. In woods and thickets.

DODONAEUS knew the structure of it's flower better than *Columna* and *Caesalpinus*; for they speak only of the little horns, but

* De Nat. Stirp. lib. 1. cap. cxi.

Dodonaeus speaks also of the plain petals, which are placed alternately amongst the horns. This plant is aperitive, diuretick, and sudorifick. *Tragus* affirms, that a dram of the powder of it's root, taken in wine, asswages the colick. *Camerarius* relates, that in *Spain* they eat every morning a little of this root for the stone. For the jaundice, *Tragus* and *Matthiolus* prescribe a dram of Columbine seeds in powder, mixt with a little saffron, and given in a glass of wine; but they kept the patient in bed for fear of interrupting the sweat which this draught provokes. *Pena* and *Lobel* commend a gargarism made with the seed, for the quinsy and ulcers of the throat. Some make use of it in the scurvy. *Camerarius* advised those, who are subject to the *vertigo*, to make use of the seeds candied. *Clusius* says, that being drank in wine, it makes women's labour easy. In the small-pox and measles, *Simon Paulli* gave half a dram, or a dram of it in a glass of the water of Fumitory and *Cardus benedictus*. *Langius* set a great value on the following powder for the jaundice; Mix twenty-five grains of Columbine-feed powdered, with a dram and half of ivory shavings, and half a scruple of powder of earth-worms. In malignant distempers, some commend emulsions made with this seed, and a decoction of raisins and figs. In the scurvy, there is no better medicine to cleanse the mouth

mouth and strengthen the gums, than the tincture of Columbine flowers drawn with spirit of wine, and mixt with double the quantity of a tincture made by dissolving and boiling for half a quarter of an hour over a clear fire, two ounces of gum lac, and two drams of mastick in tears, in a point of water.

It flowers in *May* and *June*.

ARISTOLOCHIA clematitis recta C. B. Pin.

307. Aristolochia clematitis, vulgaris J. B.

3. 560. Aristolochia farracenica Dod. Pempt.

326. *Creeping Birthwort*. In the hedges at Wittlesford in Cambridgeshire.

FUCHSIUS and *Dodonaeus* agree, that this species of *Aristolochia* may be used instead of the others, since it wants neither bitterness nor acrimony. *Anguillara* himself has observed, that the root of this species was more aromatick; and *J. Baubin* makes no doubt of it's being that which *Andromachus* and *Galen* used in the treacle, under the name of *Aristolochia tenuis*. Howsoever it be, the leaves of this species are very bitter, and give no tincture of red to the blue paper. The root gives it a little; it is aromatick and very bitter.

By the * chymical analysis it yields a great deal of acid liquors, Oil and Earth, a

* Extract of the registers of the royal academy of Sciences.

little urinous spirit, and no volatile concrete salt. It's fixed salt gives no tincture of yellow to the solution of sublimate; whence we may conjecture, that the salt of the *Aristolochia*, is much the same as the salt of coral would be, if one poured more acid upon it than is sufficient to saturate the coral: Besides this, the salt of the *Aristolochia* contains a little *Sal Ammoniac*, and is involv'd in a great deal of sulphur.

THIS plant is aperitive, sudorifick, detensive, and vulnerary; it's great bitterness hinders it's being given in potions: The powder is given from a scruple to a dram; and the extract from half a dram to four scruples. It is of great use in the fits of the mother, green sickness, asthma, and intermitting fevers. Every body knows that it's root is used in vulnerary lotions and tinctures.

I. ARTEMISIA vulgaris, major, caule & flore purpurascens C. B. Pin. 137. Artemisia vulgaris J. B. 3. 184. Artemisia rubra Tabern. Icon. 7. Mugwort. By hedges, and in waste places.

J. BAUHIN had reason to believe, that the *Artemisia vulgaris major*, Pin. the *Artemisia vulgaris minor*, Pin. and the *Artemisia montana*, Pin. are but varieties of the same plant.

THE Mugwort has a little herby, saltish taste, and gives a faint red colour to the blue paper. The salt which is naturally in this plant,

plant probably resembles the *Sal Ammoniac*, but is united with a great deal of sulphur and earth: For by * the chymical analysis we obtain from the Mugwort, beside several acid liquors, some concreted, volatile, and very lixivial fixed salt, and a great deal of sulphur and earth. All these principles render this plant very aperitive, and proper to regulate and restore the *menfes*: An extract, a conserve and syrup are prepared from it: That which *Fernelius* has described is too compound; that of *Lemery's* description is preferable. For the vapours, the leaves and flowers of Mugwort are taken after the manner of tea; they are used also in broths and ptisans.

2. ARTEMISIA vulgaris major, caule ex oiridi albicante C. B. Pin. 137.

THE florets are of a brimstone colour; those of the preceding are purplish. *Vaill.*

1. ARUM J. B. 2. 783. Arum maculatum, maculis nigris C. B. Pin. 195. Arum officinarum Lob. Icon. 597. *Wake-Robin, Cuckow-Pint. In shady places early in the spring.*

THE root is so very acrid and burning, that being chewed it affects the mouth for two or three days; it is very glutinous also,

* Extract of the registers of the royal academy of sciences.

and in a manner mealy : one may conjecture by it's staining the blue paper with a red colour, that it contains a salt in some measure resembling that which results from a mixture of spirit of nitre and *sal ammoniac*, sweetned with a very glutinous Sugar ; all these parts are found in the *Arum*. By the * chymical analysis it affords some very acid liquors, and some concreted, volatile salt. The juice of it's leaves, a little thickened upon the fire, emits an urinous spirit, when mixt with oil of tartar : The fire destroys it's glutinous juice, and separates from it a great deal of oil, flegm, and earth, which by their mixture form this viscous liquor : But some parts of the *Arum* seem to be more disengaged than the others ; for by the taste, it affects the tongue from time to time with a great deal of quickness, as if it were by the pricking of a Launcet. A dram of it's root dried and powdered, dissolves that thick, glutinous lymph, which in an asthma or old cough, stuffs the vesicles of the lungs ; and in the cachexy, scurvy, and intermitting fevers, corrupts the leaven of the *Primæ viæ*, and causes obstructions of the bowels ; this powder may be mixed with an equal quantity of sugar and a little cinnamon, to

* Extract of the registers of the royal academy of sciences.

cure the green sickness. *Tragus* pretends that the root, fresh and bruised, is one of the best remedies for the plague; in this case, it must be divided into little bolusses, covered with powder of *Liquorice*, and wrapped up in wafers; some boil it, and mix it afterwards with some *Narbonne* honey. *Laurembergius* gave a dram of it alone for ruptures.

* *Mesue* corrected it with the decoction of raisins, and made use of it as of one of the best purgatives in chronical and obstinate diseases; it is true, he added so many other purgatives, that it is hard to judge whether the root of *Arum* is really cathartick. *Philagrius*, in the same author, made cakes of the fresh root, bruised and mixed with an equal quantity of wheat-flower; he baked them, and gave them to eat to those that were subject to the piles. *Antoine Constantin*, a famous physician of *Aix* in *Provence*, author of the *Pharmacie Provençal*, purged those who had a cachexy, with three or four drams of the pulp of this root, strained through a sieve, mixed with three drams of Mint, and one dram of *Wormwood* powdered: There was an opiate made of all these things worked up together, with a sufficient quantity of honey and juice of quinces mixed equally. The leaves of the Wake-Robin

* Mes. cap. 24. de simplic.

bruised and applied to the ulcers of men and horses, cleanse them in a short time: The distilled water is deterfive, and clears the complexion. *Caesalpinus* says, that in *Italy* they use the roots to take away freckles, and that there is a white colour prepared of it resembling ceruse: *Parant quoque ex eâ contusâ & diligenter ablutâ succum cerusæ similem**: It is a kind of *Fecula*, which *Matthioli* very much esteems for beautifying the complexion. The ordinary *Fecula* of *Arum*, which is only the dregs of the juice of its bruised root, gives great relief in the asthma: This *Fecula*, beside the terrestrial and absorbing parts, contains active principles also, for it considerably heats the tongue. In all the lower *Poitou*, the country-women whiten their linnen with the paste of Wake-Robin; they cut the stalks into little bits when it is in flower, macerate it for three weeks in water, which they change every day, and dry the *foeces* after having reduced them to a paste.

2. ARUM maculatum, maculis candidis & nigris C. B. Pin. 195.

THIS plant is found mixed with the *Arum vulgare non maculatum* C. B. so that it is probably only a variety.

3. ARUM vulgare non maculatum C. B. Pin. 195.

* *Caesalp.* 226.

1. ARUNDO vulgaris five phragmites Dioscoridis & Theophrasti C. B. Pin. 17. Arundo vulgaris palustris J. B. 2. 485. *Common Reed.* In standing waters, and on the banks of rivers and great ditches.

THEY have put in J. B. the figure of the *Gramen caninum*, *supinum* Lob. for that of the *Calamagrostis* Lob. * Lobel's figure would be good enough, if it's roots did not represent a plant that creeps. *Pena* and *Lobel's* description is wrong, as *J. Bauhin* observes, in comparing the panicle of this *Gramen*, to that of *Panicum* or *Sorghum*. *J. Bauhin* questions whether the *Gramen arundinaceum*, *majus* *Tabern.* ought to be referred to it as his brother has done.

It's *Locustae* are like those of Oats, and are each of them composed of three or four flowers, the chaff of which is encompassed with white, silky hairs, which form a kind of pavilion, in the bottom of which the capsule of the seed is fastened. *Vaill.*

2. ARUNDO sylvatica, elatior, panicula molli candida, & serici modo lucenti H. Ox. 3. 218. Sect. viii. tab. 8. *Gramen arundinaceum*, panicula molli spadicea, majus C. B. Pin. 7. Theat. 94, 95. *Gramen plumosum* *Lobelii*, spica candida & serici modo lucens J. B. 2. 476. *Gramen tomentosum*,

* Lob. Icon. 21 & 211.

arundinaceum Ger. emac. 9. Calamagrostis
five gramen tomentosum Park. 1182. *In
some thickets in Northamptonshire and Essex.*

It's *Locustae* consist of two chaffs only,
which are about two lines long, very narrow
and pointed: They inclose one small seed,
placed in the centre of a plume of dirty
white hairs near two lines long. The pani-
cles begin to appear about the middle of
June. Vaill.

ASARUM Dod. Pempt. 358. J. B. 3. 548.
Asarabacca.

IN *several woods of Lancashire, Leigh*
Nat. Hist. Lanc.

It's leaves and roots are very bitter, and
give a deep tincture of red to the blue paper:
The roots smell something like the *great Va-*
lerian. The *Asarabacca* contains a great deal
of oily, volatile, aromatic salt, loaded with a
great deal of sulphur, acid, and terrestrial parts.

By the chymical analysis it affords a great
deal of oil and earth, a little urinous spirit,
no concreted volatile salt, but several acid
liquors.

DIOSCORIDES says, that six drams of the
roots of *Asarum* infused, purge as well as
Hellebore, and provoke the menses: he al-
lows them to be diuretick, and good for
those who have the dropfy or sciatica; they
are still used on the same occasions; they
purge both upwards and downwards with-
out fatiguing the patients: a night's in-
fusion

fusion of half an ounce of its roots in wine, is a good emetick in intermitting fevers, the dropſy, gout, ſciatica, in all ſorts of looſeneſſes, and the dyſentery: ſeven or eight of it's leaves infuſed in a glaſs of white-wine, have the ſame virtues. A bolus may be made of a dram of the powder of the roots, or two ſcruples of that of the leaves, with a little marmelade of Orange-flowers. A night's infuſion of an ounce of it's roots in a pint of water, ſtrained and drank warm in the morning, is a good diuretick, but does not make the Patient vomit; for the common water loading itſelf only with it's ſaline parts, provokes urine, and opens and ſtrengthens the bowels.

I. ASCLEPIAS albo flore C. B. Pin. 303. Aſclepias five Vincetoxicum multis, floribus albicantibus J. B. 2. 139. Vincetoxicum Dod. Pempt. 407. *Swallow-wort. It is cultivated in our gardens.*

CAESALPINUS ſays, that the juice of this plant is milky; it has always appeared to me to be pretty clear. J. Bauhin took the flower of the Swallow-wort to be pentapetalous; but it is monopetalous: the flower is ſeldom milk white; but uſually of a muddy colour. The roots of Swallow-wort are bitter, acrid, and give a faint red colour to the blue paper; the leaves taſte a little ſaltish, and give the ſame paper a fainter red colour, which makes me believe the ſalt of this

plant is in some measure like the *Oxyfal Diaphoreticum* of *Angelus Sala*; a fixed salt a little too much impregnated with acid; but in the *Swallow-wort*, it is involved in a great deal of sulphur and earth: thus it is no wonder that this plant should be sudorifick and deterfive. *Tragus* affirms, that the wine in which a pound of it's roots has been macerated, and boiled to the consumption of a third part, powerfully provokes sweat, and gives ease to those who are troubled with the Dropfy: the decoction of this plant renders the humours volatile, and works both by urine and transpiration. This decoction is preferable to that of *Scorzonera*, in malignant Fevers and the Plague. For the suppression of the Menfes, put one ounce of the root of *Swallow-wort* in a pint of boiling water, strain the infusion, and give three glasses of it to drink every day, with the syrup of *Mugwort*, or the cachectick aperitive syrup of *M. Charas*; which is also very good for the biting of a mad dog. The extract of its roots and leaves, from half a dram to a dram and a half, has the same effect. The herb applied as a cataplasm, dissolves the tumours of the breasts; the powder of the leaves and root cleanses ulcers, as well as that of Birth-wort.

2. ASCLEPIAS angustifolia flore flavescente
H. R. Par.

3. ASCLE-

3. ASCLEPIAS albo flore foliis ex albo & viridi variegatis. Vaill. 16.

4. ASCLEPIAS non scriptum foliis nigris in summo hispidis. Corn. 220.

ASPARAGUS sylvestris, tenuissimo folio. C. B. Pin. 490. Asparagus sylvestris Matth. 478. *Wild Sparagus or Sperage, corruptly called Sparrowgrafs. In salt marshes in many places; as about the Lizard-point, Bristol, Harwich and Gravesend.*

THIS species has been a long time cultivated in the royal garden, just by the common one, which is the *Asparagus sativa* C. B. Pin. But the wild one has not yet changed, and the whole plant is much slenderer there, as well as in the fields: it's root is sweetish and glutinous, like that of the common *Sparagus*; it gives hardly any tincture of red to the blue paper, which makes it probable that it's salt resembles the vitriolated Tartar, dissolved in a great deal of flegm, thickned with some earth and sulphur; by which the root is an aperitive, a little tempered.

MORISON (*Hist Ox.* 2. 3.) affirms, that the *Asparagus sylvestris tenuissimo folio* C. B. Pin. and the *Asparagus maritimus crassiore folio ejusd.* being cultivated, change into this, but we are fully convinced of the contrary; for these three plants have not changed at all in the royal garden, though they have been cultivated there time out of mind. Vaill.

ASPERUGO vulgaris Inst. 135. Buglossum sylvestre, caulibus procumbentibus C. B. Pin. 257. Cynoglossa forte Topiaria Plinio, five Echium lappulatum quibusdam J. B. 3. 590. *Small Wild Bugloss.* It formerly grew near Newmarket; but has been lost there for some years. It is said to grow at Boxley in Suffex, and in the Holy Island.

J. BAUHIN's figure is transposed; that of * *Columna*, who calls it *Borrage minor sylvestris*, καρποκήνοποις, is excellent: he affirms, that in some places of *la Pouille*, the Apothecaries use it instead of *Borrage*, and the peasants eat it in their soup. He observes also, that *Pena* and *Lobel* have improperly compared it's leaves with those of *Madder*, and affirmed, without reason, that it's flowers were in whirls: it is not very easy to judge whether † *Caesalpinus* has spoken of it under the name of *Crucialis quaedam, in maritimis minima, quatuor digitorum altitudine, fructu in orbibus pungente*; for he says no more of it.

It flowers in *May*. It's flower is blue, and not above a line in diameter. It's seeds are brown, a little flat, not much unlike a Pear kernel. *Vaill.*

ASPLENIUM five Ceterach J. B. 3. 749. Asplenium Dod. Pempt. 468. Ceterach

* Part. I. 181.

† *Caesalp.* 325.

officinarum C. B. Pin. 354. *Spleen-wort or Miltwast.* In the clefts of rocks and on old walls; as on St. Vincent's rock, and the walls about Bristol, and on Stroud church near Rochester.

It is one of the five capillaries. It may be used after the manner of tea. It is aperitive and moderately diuretick; thus it is not without reason macerated in cold water, and given to drink in the jaundice and obstructions of the bowels. It is mixed with other aperitive Plants, in juleps, decoctions and apozemes.

1. ASTER arvensis, caeruleus, acris Inst. 481. Conyza caerulea, acris C. B. Pin. 265. Senecio, five Erigeron caeruleus, aliis Conyza caerulea J. B. 2. 1043. Erigerum quartum Dod. Pempt. 641. *Blue-flowered sweet Flea-bane.*

DODONAEUS had not well observed the flower of this plant; he says that it is a pale yellow; whereas only the disk is yellow, but it's ray is bluish purple. The empalement is scaly and hairy; the scales are long, narrow and a little raised. The seeds are oblong, yellow and crowned with hairs. It flowers in July and August. Vaill.

2. ASTER palustris, parvo flore globoso Inst. 483. Conyza major, flore globoso C. B. Pin. 266. Conyzae mediae minor species, flore vix radiato J. B. 2. 1050. Conyza minor Tabern. Icon. 860. *Small Flea-bane.*

TABERNAEMONTANUS's figure of this plant is good ; those of *Matthiolus* and *Tragus* are very bad : the semiflorets are so short, that this last author, *Dodonaeus*, *Pena* and *Lobel* believed it's flower was not radiated : the down of the seeds is but one line long. Mr. *Ray* affirms that they have none at all : it is likely that there is a transposition in * *Cordus*, as *J. Bauhin* has observed ; for the figure of this Plant is joined to the description of the *Psyllium*, and this figure is taken from *Tragus*.

It flowers about the end of *July* and *August*. It's flower is five or six lines in diameter, of a pale yellow colour ; the ray encompasses it, being about half a line broad. The leaves of the Plant are waved and curled. It's empalement is hemispherical and woolly. It's seeds are crowned with hairs. *Vaill.*

3. *ASTER pratensis, autumnalis, Conyzae folio* Inst. 482. *Conyza media Asteris flore luteo, vel tertia Dioscoridis* C. B. Pin. 265. *Conyza media Matthioli, flore magno, luteo, humidis locis proveniens* J. B. 2. 1050. *Conyza media* Dod. Pempt. 52. *Middle Fleabane. In watery places and ditch-sides every where.*

THE disk is encompassed with a ray of many semiflorets, about eighty in number,

* *Cord. Hist.* 154.

three or four lines long, and half a line broad. The empalement is a flat bafon, composed of long, narrow, woolly leaves. It's seeds are crowned with hairs. It flowers in *July* and *August*. *Vaill.*

4. *ASTER palustris luteus*, folio longiori, lanuginoso Inft. 483. *Conyzis affinis* C. B. Pin. 265. *Britannica Conyzoides*, quibusdam After Pannonicus Clusio J. B. 2. 1047. *Britannica vera Dalechampii* Lugd. 1087.

THIS Plant, though very common, is known but by very few. It's root is a tuft of white, waving fibres, four or five inches long, half a line thick, joining to the same head, from which proceed certain filaments, which running in the ground serve to multiply this plant: it's stalks grow three or four together, a foot and a half, or two foot high; they are sometimes purplish towards the bottom, a line and a half, or two lines thick, branched only towards the top, full of pith, covered with short hairs. The under-leaves are half a foot or eight inches long, about an inch or an inch and a half broad; they are greenish, pointed at the two ends, gently waved along the edges, covered with hairs like those of the branches; but sometimes longer, heightened with a thick whitish or purplish rib, rounded underneath: this rib emits some fibres which extend themselves obliquely along the edges. The leaves which accompany the stalk are

alternate, three or four inches long; they increase in bigness sometimes towards the top, where they surround one half of the stalk, with a basis which is rounded, and almost an inch broad; they grow less and less to the end, and send forth from their bosoms some little suckers garnished with very small leaves. The branches grow close to the stalk, and are subdivided into two or three slips, each of which sustains a radiated, yellow flower, an inch and a half or two inches broad. The disk of the flower is composed of about 350 slender florets, three lines high, a little expanded and divided into five points, in the middle of which there is a very short, forked thred. The ray consists of 50 or 60 semiflorets of the same colour, which are almost ten lines long, and about half a line broad; they are very often crooked at the bottom, forked at their extremities, and garnished at their base with a thred like that of the floret; but of a fillemot colour. The embryos of the seeds which sustain the florets and semiflorets are white, small, and half a line high; they grow bigger afterwards, and become brown, and their down, which is white, is about three lines high.

THE root of this plant is very bitter, acrid, and as it were oily; it has the scent of hay: the leaves also are bitter, but without astringency.

It loves moist places ; it flowers in *July*, *August* and *September*, towards the end of which it's seeds ripen. It's root is much better described in the memoirs of *Pena* and *Lobel*, than in the *Hist. Lugd.* though the figures which the authors of these books have given of this plant, are not over good. The author of the *Hist. Lugd.* to accommodate himself to the description which * *Dioscorides* and † *Pliny* have left us of the *Britannica*, affirms, that it's roots are black, and that the plant is very astringent. *J. Bauhin* suspects that it is the same with the *Aster III. Austriacus I.* § *Clus.* but the figure of the roots, their colour, and some other circumstances, do not agree with this plant.

5. *ASTER palustris luteus hirsuto salicis folio* C. B. Pin. 266. *Aster luteo flore, aliis Conyzae species* Cam. Epit. 907. *Vaill.* 18.

It flowers towards the end of *June* and *July*. It's flower is yellow, and about an inch and a half in diameter. The semiflorets are near an inch long, and a line broad, thirty or forty in number. *Vaill.* 18.

6. *ASTER montanus, luteus, Salicis folio glabro* C. B. Pin. 266. *Conyza media Monspeliensis, quibusdam Asteris Attici genus, folio glabro, rigido* J. B. 2. 1049. *Bubonium luteum* Tabern. Icon. 337.

* Lib. 4. cap. 2. † Lib. 25. cap. 3. § Hist. XIII.
M. MAC-

M. MAGNOL was in the right to refer to this species the *Aster Italorum luteus, fruticosus, oleae folio, Conyzae facie*, which *Pena* and *Lobel* describe to grow on the road from *Nismes* to *Avignon*, and about *Boutonnet* near *Montpelier*; but we must observe, that these authors, who have described it not amiss in their memoirs, have confounded it in their observations with the *Aster Atticus, caeruleus, vulgaris* *Pin.* for their figure of the *Aster Italorum* is the same with that which *Clusius* made use of to represent the *Aster* VIII. *Italorum* & *Fuchsii*. This is without doubt what deceived *C. Baubin*, who has referred to the *Aster Italorum* of *Lobel*, the *Aster* VIII. *Italorum* of *Clusius*, which he repeats with more reason amongst the synonymies of the *Aster Atticus caeruleus, vulgaris*: it is under this last species also of *Aster*, that we must range all the synonymies which *C. Baubin* has ranged under the *Aster luteus, folio glabro* & *crenato*: except that of the memoirs of *Pena* and *Lobel*, which, as we just now said, is the same with the *Aster montanus, luteus, Salicis folio glabro* *C. B. Pin.*

7. ASTER incanus, Verbasci folio, villosus *Inst.* 482. *Conyza incana* *C. B. Pin.* 265. *Conyza Helenitis, mellita, incana*, *Lob. Icon.* 347. *J. B.* 2. 1052.

8. ASTER omnium maximus, Helenium dictus *Inst.* 483. *Helenium vulgare* *C. B. Pin.*

Pin. 276. *Helenium* five *Enula campana* J. B. 3. 108. *Helenium* Dod. Pempt. 344. *Elecampane*. It is seldom found wild about London. It grows in great plenty about Madingley near Cambridge.

It's root is acrid, bitter, a little glutinous, aromattick, gives a faint red to the blue paper, and smells like Orrice when dry.

* By the chymical analysis, beside several acid liquors, it yields a great deal of oil, a little of an urinous spirit, no concreted volatile salt. The leaves yield a good deal; so that this plant seems to act by an oily, volatile salt, the *Sal Ammoniac* of which is not entirely disengaged, and is greatly loaded with sulphur.

THE root is stomachick, pectoral, diuretick, and provokes the *menfes*: It is used in ptisans, decoctions, and apozemes, for the asthma, inveterate coughs, dropfy, and cachexy. There is a confection made of these roots, and they are boiled in must or wort. *Elecampane* wine strengthens the stomach, cures the jaundice, provokes urine, and protects one from the injuries of a bad air. The extract has the same virtues. Externally applied, they are resolvent, and good for the diseases of the skin; they give

* Extract of the registers of the royal Academy of Sciences.

name to the *Unguentum Enulatum*, in which Mercury is sometimes used. They are used in the ointment for the itch, which we shall describe, when we come to speak of the *Lapathum folio acuto, crispo* C. B.

1. *ASTRAGALUS luteus, perennis, procumbens, vulgaris, five sylvestris* Mor. Hist. 107. *Glycyrhiza sylvestris, floribus luteo pallescentibus* C. B. Pin. 352. *Faenum graecum sylvestre five Glycyrhiza sylvestris primum* Dod. Pempt. 547. *Wild-Liquorice, or Liquorice-Vetch.* In thickets in many places, as about Charlton in Kent, and Great-Shelford in Cambridgeshire.

It's root is sweetish, astringent, and gives a deep tincture of red to the blue paper; the leaves give it hardly any; they are bitter, and smell like Elder; which shews that the fetid oil is found in greater quantity in the leaves, and that it involves the acrid salt and earth: This plant is not in use: Nevertheless a night's infusion of it in wine is given, with success, for the retention of urine, and for the gravel by some Herbarists at *Paris*.

2. *ASTRAGALUS Monspeffulanus* J. B. 2. 338.

THE flowers of the first species are of a greenish yellow, five or six lines long; in this they are purplish, inclining to violet, and nine lines long. *Vaill.*

1. ATRIPLEX folio hastato, five deltoide Mor. H. R. Bles. Atriplex sylvestris, annua, folio deltoide, triangulari, sinuato & mucronato, hastae cuspidi simili Mor. Hist. 607. Atriplex sylvestris, folio hastato, five deltoide Raii Hist. 192. *Wild-Orache, with a spear-pointed leaf. Common in waste places.*

Mr. RAY's description is good; it is probably the species which *Dodonaeus* * calls, *Atriplex sylvestris*, and he describes well enough in these words, *Laevitate formaque foliorum, floribus, semine folioso hortensem aemulatur, humilior ac minor est omnibus partibus.* We have no species of Orache which is more like the garden one than this. *C. Bauhin* was in the wrong to join it with the *Cynocrambe* L. of § *Caesalpinus*, who took it for a plant which does not flower. This last species comes much nearer to the *Atriplex sylvestris*, folio sinuato, candicante *C. B. Pin.* The *Atriplex sylvestris* *Caes.* seems to agree with this of *Morison*; *Brevior est sativâ, folio simili, sed minore ac nigriore, seminibus similibus, similiter depressis, nigris, in folliculo quadrato.*

2. ATRIPLEX angusto, oblongo folio *C. B. Pin.* 119. *Atriplex sylvestris* *Polygoni*, aut *Helxines foliis* *Lob. Icon.* 257. *Atriplex vulgaris, angustifolia, cum folliculis* *J. B.* 2.

* Pempt. 614.

§ *Caesalp.* p. 161.

973. *Narrow-leaved wild Orache. With the former.*

It is found very often with crooked stalks, and lying on the ground; sometimes they are strait, and firm enough.

3. ATRIPLEX angustissimo, & longissimo folio H. L. Bat.

1. AVENA vulgaris five alba C. B. Pin. 23. Avena alba J. B. 2. 432. *White Oats.*

2. AVENA nigra C. B. Pin. 23. J. B. 2. 432. *Black Oats. These are both sown in the fields.*

3. AVENA sylvestris pilosa, aristis recurvis H. Ox. 3. 209. Festuca utriculis lanugine flavescentibus C. B. Pin. 10. Aegilops quibusdam, aristis recurvis, five Avena pilosa J. B. 2. 433. Festuca prior Dod. 539. Gramen avenaceum, utriculis lanugine flavescentibus Inst. 525. *Bearded wild Oats or Haver. This is a very troublesome weed amongst the Corn.*

It is of the beard of this, that M. Magnan's Hygrometer is made. *Vaill.*

1. BALLOTE Math. 825. Marrubium nigrum foetidum, Ballote Dioscoridis C. B. Pin. 230. Marrubium nigrum five Ballote J. B. 3. 318. *Stinking Horehound. Common in hedges.*

It's leaves are bitter, stinking, and give no tincture of red to the blue paper, which makes us conjecture that the natural salt of the earth is involved in it by a great deal of fetid

fetid oil. Mr. Ray recommends a strong decoction of it in hysterical and hypochondriack cases. Make a tea of equal parts of white Horehound, stinking Horehound, and Betony leaves, and drink every day three or four cups of it in order to prevent the Gout, or render its attacks the less violent.

2. BALLOTE flore albo Inst. 185. *This differs from the first only in the colour of it's flower; and often occurs.*

BALSAMINA lutea, five Noli me tangere C. B. Pin. 306. *Quick in hand, Touch me not.*

ON the banks of *Winander-meer* near *Ambleside*; by the cloth-mill in *Satertthwait* parish *Lancashire*, and in many places of *Westmoreland*, Mr. Lawson. Dr. Richardson has found it near *Bingley*; and Mr. Lhwyd in *Wales*, R. Syn. 317.

It flowers in July and August.

BELLADONA majoribus foliis & fructibus Inst. 77. Belladonna Clus. Pan. 503. Solanum lethale, Belladonna Clus. Hist. cxxxvi. Solanum μελανοκεράδος C. B. Pin. 166. Solanum manicum multis, five Belladonna J. B. 3. 611. *Deadly Nightshade or Dwale. In a ditch at the end of Goswell-Street in the road to Islington. It is found in Cambridgeshire in many places, as on Jesus-Green, about Fulborn, and near most of the villages about Wisbech.*

THE fruits of this plant taken internally are very dangerous, as appears by several histories, which occur among botanick writers. The painters in miniature macerate it, and obtain a fine green from it. The leaves of *Belladonna* are great sweetners and resolvent; they are applied to the piles and cancers: Some boil them with whey, or make use of their juice. Mr. *Ray* confirms these uses of it, especially in carcinomatous ulcers and indurations of the breasts.

BELLIS fylvestris, minor C. B. Pin. 261.
Bellis minor, fylvestris, spontanea J. B. 3.
III. *The common wild Daisy.*

J. BAUHIN's figure is transposed; that of * *Tabernaemontanus*, who calls it *Bellis minor, fylvestris*, is not bad.

It's leaves are acrid, glutinous, and give hardly any tincture of red to the blue paper, which shews that it's salt is not very different from that which is natural in the earth; that is, composed of *Sal Ammoniac*, nitre, and marine salt, involved in a great deal of sulphur and earth, which thicken the sap of the Daiesies, and render it viscous: This plant taken in a ptisan or extract, dissolves the blood which is thickened by too cold an air, as it often happens in the inflammation of the lungs; it takes away obstructions, faci-

* Icon. 321.

litates the circulation of the blood, and restores their fibres to their natural elasticity: for which reason it is thought to be very vulnerary. *Ruellius* affirms, that a cataplasm made with Daify and Mugwort, dissolves scrophulous tumours, and those wherein there is an inflammation, and gives ease to those who are troubled with the gout or palsey.

BERBERIS dumetorum C. B. Pin. 458. Berberis vulgo, quae & Oxyacantha putata J. B. 1. 52. Spina acida, five Oxyacantha Dod. Pempt. 750. *The Barberry or Pipperidge-bush. In hedges.*

It's root is yellow, very bitter, and gives but a faint red colour to the blue paper: The juice gives it as lively a red as *Alum*. * This plant being analysed, yields a great deal of acid liquor, a little urinous spirit, and a good deal of oil and earth. The fruit is chiefly in use; it assuages too great a fermentation of the humours, especially when caused by bile. *Tragus* affirms, that a wine made of the juice of its berries, will stop a diarrhoea, dysentery, and the whites. The infusion of them is given to drink: There is a confection, a syrup, a gelly, and a rob made of them, which are used in cooling Juleps. *Simon Paulli* shews the manner of making the

* Extract of the registers of the royal academy of sciences.

essential salt, which he calls the tartar of Barberries: Take, says he, two pounds of the juice of Barberries, and two ounces of Lemon juice, evaporate them very gently over the fire, strain them, and set them to crystallize in a cellar; these crystals are very cooling. In the heat of urine and internal inflammations, they dissolve nitre in the juice of Barberries to make it crystallize. The bark of the root is astringent and deterfive.

I. *BETONICA* *purpurea* C. B. Pin. 235.
Betonica vulgaris, purpurea J. B. 3. 301.
Betonica Dod. Pempt. 40. *Wood Betony.*
In woods and under bushes.

THE leaves of this plant have an herby taste, are a little saltish and aromatick, and give no tincture of red to the blue paper. The flowers and roots, which are very bitter, stain it very little. The *Betony* is full of sulphur, mixed with a little oily, volatile salt and earth.

By the * chymical analysis it affords a great deal of oil, a little earth, and fixt salt, no concreted, volatile salt, but a little urinous spirit.

THE *Betony* is vulnerary, aperitive, diuretick, sweetening, good for the diseases of

* Abstract of the registers of the royal academy of sciences.

the brain, and lower belly ; a tea of the leaves is good for the vapours, sciatica, gout, pains in the head, jaundice and palsy : The ptisan of it's leaves, a cold infusion of them in water, the conserve of its flowers, the syrup of the flowers and leaves, and the juice and extract of these parts, have the same virtues : They promote expectoration, and bring away purulent matter ; they consolidate internal ulcers, and remove obstructions in the bowels : A sneezing powder is made of the leaves, and a vulnerary and cephalick plaster is prepared with the juice : The roots have not the same virtues, but they purge both upwards and downwards.

2. *BETONICA* alba C. B. Pin. 235. *Betonica albo flore* Dod. Pempt. 39. J. B. 3. 302.

3. *BETONICA arvensis*, annua, flore ex albo flavescente Inst. 203. *Sideritis arvensis*, latifolia, glabra C. B. Pin. 233. *Sideritis glabra*, arvensis J. B. 3. 427. *Alyssum majus* Tabern. Icon. 541.

It is almost impossible to determine whether the *Sideritis Herculea*, altera *Caesalp.* and the *Sideritis prima*, arvensis, species altera, *Thal.* ought to be referred to this plant. As for the *Sideritis arvensis*, flore pallido *Cam.* *Camerarius* does but just name it. *C. Bauhin* believes, (not without reason) that the *Sideritis II. Matth.* is the same plant with the *Sideritis arvensis*, latifolia, glabra Pin.

Matthiolus has not described his second species of *Sideritis*, for he sometimes pleases himself with leaving one to guess at the plants which he proposes: It is very likely that he engraved his second species of *Sideritis* after some dried specimen of the *Sideritis arvensis*, *latifolia*, *glabra*, which he had received from some of his friends: But as for those which he has called *Sideritis* III and IV, it is easy to see that he has drawn them upon the description of *Dioscorides*, who says, that one has the leaves of Fern, and the other of Coriander.

BETULA Dod. Pempt. 839. J. B. 1. 148.
The Birch-tree. In woods.

MATTHIOLUS and *Camerarius* deny that this tree bears any fruit. *Tragus* and *Dodonaeus* have confounded this part with the catkins: Mr. *Ray* questions whether they differ. Here follows a description of each of them. * The Catkins are of the shape of a worm, they appear in the month of *April*, an inch and a half long, and about two lines thick; composed of several reddish leaves, shaped like the head of a pike, two lines long, fastened round an axle, which is in the middle of the Catkin, and disposed in scales lying upon one another, before it is blown; these leaves are afterwards divided by a tuft

* Elem. de Bot. Tab. 360.

of four or five summits which grow under each leaf, about the part by which they are fastened to the axle; they are slender, one line long, yellowish, sometimes purple; opening in the midst like a folding door, and scatter a very fine yellowish dust; they are fastened by such short threds that one cannot call them chives. There are again some small leaves very delicate, which grow among the summits. The young fruits appear at the same time with the Catkins, and upon the same branches, but in different places. Each fruit resembles also a little worm, half an inch long, one line thick, the point of which is lessened towards the pedicle, the other end fastened to an axle, which is in the middle of the fruit. Under each scale is found the embryo of the seed with four or five very fine small purple plumes: These young fruits afterwards become cylindrical, one inch long, three or four lines thick, and the brown scales (when the seed is ripe) are more than two lines long, and trifid: The seeds under these scales are flat, brown, one line long, almost oval, bordered on each side with two wings, much bigger than the seed, paler, rounded, and pretty like those of a small butter-fly. The seed is ripe in autumn, and may be found upon the tree all winter, and the spring following.

THE bark of the Birch-tree is very fine. *Tragus* says, that he has seen in a library at

Coire in *Switzerland*, verses written upon it; they use it to this day to make ropes for wells: They affirm that the liquor which comes out of the trunk of this tree, after it has been pierced with an awger in the spring, is very aperitive, deterfive, and cosmetick; they ascribe the same virtues to its depurated juice and distilled water.

1. *BIDENS* foliis tripartito divisis *Caesalp.* 488. *Cannabina aquatica*, folio tripartito diviso *C. B. Pin.* 321. *Verbesina*, five *Cannabina aquatica*, flore minus pulchro, elatior, ac magis frequens *J. B.* 2. 1073. *Hepatorium aquatile* *Dod. Pempt.* 595. *Water-Hemp-Agrimony with a divided leaf.* Common in watery places.

TRAGUS has distinguished this plant very well; he conjectures it may be that species of *Vervain*, which *Dioscorides* has described with stalks lying upon the ground. We must pardon the first of these for having advanced that the seeds of this plant fly in the air, like those of *Groundsel*: There are none, properly speaking, but the pappous seeds which are capable of doing so: These have but two or three points, by which they fasten themselves to the cloaths, as the same author has observed. *Caesalpinus* seems to have believed that the *Cannabina aquatica folio non diviso C. B.* is but a variety of this: *Eadem* (says he) *reperitur aliquando folio non dissecto.* This plant is twice engraved in the *Hist.* Lugd.

Lugd. under the names of *Hydropiper alterum Dalechampii*, of which the figure is very bad, and *Hydropiper, Pseudo-hepatarium foemina Dodonaei*.

2. BIDENS folio non dissecto Caesalp. 488. Cannabina aquatica, folio non diviso C. B. Pin. 321. Verbefina pulchriore flore luteo J. B. 2. 1074. Eupatorium cannabinum, Chrysanthemum Tabern. Icon. 17. *Water-Hemp-Agrimony with an undivided leaf. With the former.*

It's flower is ill engraved in *Tabernaemontanus's* figure.

BOTH these species flower in *August* and *September*, and ripen their seeds in *September* and *October*. Their flowers are yellow. Their seeds are generally crowned with four teeth or points; they are of a brown colour and separated from each other by chaff. *Vaill.*

BLATTARIA lutea, folio longo, laciniato C. B. Pin. 240. Blattaria lutea J. B. 3. App. 874. Blattaria Dod. Pempt. 145. *Moth-Mullein.*

BETWEEN *Deptford* and *Greenwich*, *Mer. Pin.* In the lane betwixt *Mitcham-Common* and *Casalton*, and near *Horns-Place* by *Rochester*, Mr. *J. Sherard. Syn. Ed. 3. p. 288.*

GERARD and *Parkinson* make two different species of this plant: *Morison* has followed them, and seems to distinguish them principally by the size of their flowers. Mr. *Ray*

believes, not without reason, that it is but the same plant: He observes also, that the white flowered one grows from the seed of that which has a yellow one; and C. Bauhin made no difficulty to refer to it that which Lobel has named *Blattaria flore ex viridi purpurascente* Icon. 366.

BLECHNON *minus, pinnulis integris*. Filix querna C. B. P. 358. Filix ramosa minor J. B. 3. 741. Filix arborea Trag. 538. *The lesser branched Fern. In shady places, but very rarely.*

C. BAUHIN had no reason to refer * *Tabernaemontanus's Filicula petraea foemina II.* to this species; we must rather, with J. Bauhin, refer it to the *Filicula petraea foemina IV.* of this author; therefore we ought not to distinguish this from the *Filix ramosa, minor, pinnulis dentatis* Pin. C. Bauhin was mistaken when he said, that the *Pteridion masculum* § *Cordi* was the same with this; for Cordus compares it to the unbranched Male-Fern, and he finds in it no other difference than that of bigness. J. Bauhin knew these species better than his brother, who has separated from his *Filix querna*, the *Filix pumila saxatilis* † Clus. Those who examine Clusius's figure well, will not distinguish it

* Tab. Icon. 793.

† Clus. Hist. cexii.

§ Cord. Hist. 170.

from that of *Tragus*. Therefore this plant is thrice repeated in the *Pinax*, under the names of *Filix querna*, of *Filix ramosa*, *minor*, *pinnulis dentatis*, and of *Filix saxatilis*, *ramosa*, *nigris maculis punctata*. *Pena* and *Lobel* have given a sorry figure of it: That of *Camerarius* seems to be but a copy of *Matthiolus*'s figure.

1. *BLITUM rubrum minus* C. B. Pin. 118. J. B. 2. 967. *Blitum rubrum supinum* Lob. Icon. 250. *Amaranthus sylvestris* & *vulgaris* Inft. *The small, wild, red Blite. It is often found on Dunghills.*

J. BAUHIN and *Lobel* have given good figures of this plant: That of the *Blitum rubrum minus* *Cam. Epit.* 235. agrees better with the *Blitum album minus* C. B. Pin.

THE root of this plant is whitish, sometimes purple, about half a line long, four or five lines thick at the neck, divided into capillaceous fibres. The stalks are procumbent, branched, about a foot long, channelled, two or three lines thick, reddish, full of juice, adorned with alternate leaves, resembling those of *Pellitory*, about two inches long, taking in the tail, which is very slender, and almost as long as the rest of the leaf. This leaf is bright green, sometimes having purplish edges, seven or eight lines broad, divided into two equal parts by a rib which extends it self from one end to the other, and forms little crooked veins, which lose them-

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themselves in the edge. Out of the bosom of each leaf sometimes proceed others, which are much smaller; these bosoms are filled with many flowers growing upon one another in rounded clusters, three or four lines in diameter. Each flower usually consists of three very narrow, pointed, guttered leaves, one line long, whitish, with a greenish back: From the middle of the flower arises an oval-pointed pointal, encompassed with three very slender chives, which are scarce a line long, and sustain each a yellowish summit: This pointal afterwards becomes an oval, flat, membranous, reddish capsule, one line long, terminated by a little thred. It is composed of two pieces, placed one upon the other, and opening transversely. In each capsule is one seed, almost round, black, smooth, shining, shaped like a little lentil.

WE have no good figure of this plant; for that of *J. B.* has it's leaves too obtuse, and represents the following species better; and that of the *Blitum rubrum minus Cam.* which agrees better with it in the leaves, makes a spike of flowers, which we do not see in our plant. *Lobel's* figure has the very same fault. *Vaill.*

2. *BLITUM sylvestre spicatum* Inst. 507.
Blitum rubrum minus Cam. Epit. 235.

CAMERARIUS is the only author, who has given a good figure of this plant; it is so like the preceding, that it is impossible to distinguish

distinguish them without the fruits. This species is quite loaded with them, but they are not only placed in the bosoms of the leaves, but form also a very considerable spike at the top of the stalks; and besides, each fruit is a sort of membranous, greyish bladder, reddish, oval, pointed, flat, a line long: it does not open transversely like the preceding, but bursts like a bladder, which is pressed, and lets out a very small, black, smooth, shining seed, shap'd like a lentil. *J. Bauhin* probably knew this plant under the name of *Blitum album minus* 2. 967. he was in the right when he said the fruits were disposed in spikes. *Lobel* seems to have designed to express it by his figure of the *Blitum rubrum supinum* Ic. 250. for we see some stalks in it terminated by spikes, and others which have none at all, and represent the preceding species not amiss.

1. *BOLETUS major, pileo fusco, poris albidis.* Fungus porosus, magnus, crassus, ex fusco albicans *J. B.* 3. 817. lib. 40. c. 29.

THE head of this is sometimes ten or eleven inches in diameter. *Vaill.*

2. *BOLETUS major, pileo purpurascente.* Fungus porosus, magnus, crassus, purpurascens.

THIS differs from the first only in colour.

3. *BOLETUS major, pileo tuberculis aspero, coloris aurantii, poris albidis.* Fungus porosus, magnus, crassus, tuberculis minimis exasper-

asperatus, colore pomi aurantii exiccati. *Vaill.* 59.

The diameter of the head is from four to six inches. The stalk is four or five inches high, above an inch thick at the base, and tapers towards the top. It is white and in a manner hairy: this hair or down afterwards grows black, and variegates the stalk.

4. *BOLETUS major, pileo castanei coloris, poris ex luteo virentibus.* Fungus porosus, magnus, crassus, coloris castanei nunc liquidioris, nunc magis fordidi. *Vaill.* 59.

THE head is from four to nine inches in diameter: it's substance is white, but it grows red soon after it is cut: it is an inch thick in it's thickest part. The top of the head is a bright chestnut colour, sometimes of a dirty white, and sometimes of an amber colour. The stalk is white, and sometimes tinged with yellow: it is five inches high, and two or three in diameter, towards the base, especially when the plant is growing, and tapers towards the top. It is found about the latter end of *August* and beginning of *September*. The *Fungus porosus, maximus, crassus, luteus, lacer, pediculo longissimo, virescente Cimel. Reg.* and the *Fungus porosus nostras, brachiatus, maximus ibid.* are varieties of this species. *Vaill.*

I take this to be the same with the Fungus porosus magnus Raii Hist. 100. which we
often

often meet with about the latter end of summer.

5. BOLETUS pileo purpurascente, poris flavis. Fungus porosus medius, sordide purpurascens. Vaill. 59.

THE head is about two inches in diameter, a little convex. The stalk is about one inch and a half high, five lines thick, and of the same colour with the head. Perhaps it is the *Fungus Italicus*, *pediculo tumente*, *pileolo supina parte coloris vini faecum*, *prona vero luteo Cimel. Reg. Vaill.*

6. BOLETUS pileo sordide albo, tuberculis castaneis variegato, poris flavis. Fungus porosus medius, superficiei sordide alba, tuberculis castaneis variegata. Vaill. 59.

THE head is hemispherical at first, afterwards it grows flatter: it is two or three inches in diameter. The stalk is about two inches high, of a dirty white, near an inch thick at the base, and about six lines at the top. I take it to be the *Fungus brizzatus madidus Raii Supp. 25. Vaill.*

7. BOLETUS laevis, & viscidus, superne coloris fusci castanei, inferne lutei Dillen. Cat. Giff. 188. Fungi lutei perniciosi sub pinu habitantes J. B. 3. 816. lib. 40. c. 24.

THE head of this is from one to three inches in diameter; it is a little convex, of the colour of ginger-bread, or a reddish yellow, smooth and a little shining. This shining proceeds from a slime, with which it

it is usually covered, especially whilst it is young. It's flesh is white. The pores are of a lemon or brimstone colour, there is a whitish liquor distils from them, which gathers in drops. The stalk is white, an inch or two long, and a little swell'd something above the base. *Vaill.*

8. *BOLETUS pileo sordide albo caule ovali.* Fungus porosus, pediculo ovali, pileoli superficie sordidissime alba. *Vaill. 60.*

THE stalk, pores and head are all the same colour; the flesh of the head, when broken or cut, is bluish, and stains the paper of the same colour. *Vaill.*

9. *BOLETUS pileo croceo, caule ovali.* Fungus porosus, pediculo ovali, pileoli superficie splendide crocea. *Vaill. 60.*

THE head is of a dark saffron colour, and the pores of a light one, as is also the upper part of the stalk, though the lower part of it is of the same colour with the head. The flesh is of a greenish yellow, when first cut, but soon changes to a dirty green. It is the *Fungus Italicus, fuscus, pileolo patulo, pediculo tumefcente & in apice rubro Cimel. Reg. Vaill.*

10. *BOLETUS pileo castanei coloris, poris albidis, pediculo ovali.* Fungus porosus, pediculo ovali, pileoli superficie castanea. *Vaill. 60.*

THE stalk is of the same colour with the head: the flesh is white, and does not change colour when it is cut. *Vaill.*

II. BOLETUS *fuscus, pediculo tumefcente.*
Fungus porosus, fuscus, pediculo tumefcente
Vaill. 60.

BORRAGO floribus caeruleis J. B. 3. 574.
Buglossum latifolium, Borrage C. B. Pin.
256. *Borrage. On dunghills and by way-*
sides.

I. BRUNELLA major, folio non dissecto C.
B. Pin. 260. Prunella flore minore, vulgaris
J. B. 3. 428. Brunella Dod. Pempt. 136.
Common self-heal. In pastures.

CAESALPINUS has more justly compared the
leaves of this plant to those of Sweet Basil,
than *Dodonaeus* to those of Mint. *C. Bau-*
hin is mistaken, in referring to this species
the *Prunella*, which * *Pena* and *Lobel* ob-
served in the wood of *Gramont*, at *Mont-*
pelier, amongst the *Kermes* and the *Ledum* ;
for they affirm, that their plant has it's
leaves cut like those of the Wild Valerian :
so that § *M. Magnol* was in the right to range
this species of Self-heal under the *Brunella*
folio laciniato Pin. *C. Bauhin* was not exact
in his quotation of *Lobel* : for the *Symphytum*
petraeum † *Lob.* is not different from the
Brunella folio laciniato ; and the *Symphytum*
petraeum, *Consolida minor Matthioli* *Lob.* is
the same with that of which we are speaking :
as also the *Brunella, symphytum petraeum*

* Adv. 199.

§ Bot. Monsp.

† Icon. 474 & 475.
Lob.

* *Lob.* as *C. Bauhin* has related the fynonymies of *Camerarius Hort.* This last author seems to have divided the same plant into two species ; but it is easy to see that he is not mistaken : for he allows that which he has called *Consolida minima*, to be the same with the *Prunella flore purpureo*.

THE *Self-heal* gives a pretty deep red colour to the blue paper ; it is of an herby, stiptick, and glutinous taste, mixed with a very little bitterness ; from which we may conjecture that the acid part of the natural salt of the earth, is in this plant disengaged from a good deal of the acrid part, and that being united with abundance of earth and sulphur, it produces there a salt which resembles Alum. This mixture of principles renders the *Self-heal* vulnerary, astringent, and deterfive ; and is an ingredient in the *Eau d'Arquebusade*, and in vulnerary potions. *J. Bauhin* esteems a lotion of it for gun-shot wounds. It is prescribed in ptisans, broths, and apozemes for spitting of blood, for bloody urine, for the too great, or too frequent flux of the menses, for the bloody-flux, and in fine for all sorts of hemorrhagies. It is used by way of injection in deep wounds, and by way of glyster in the bloody-flux. For the diseases of the throat, gargarisms of

it must be frequently used: they bath the gums of scorbutick persons with it, adding some grains of mastick. The distilled water of the whole plant, and the conserve of it's flowers, may be used for the same purposes. *Caesalpinus* used the leaves bruised, and applied in form of a cataplasm, to suppurate boils, and to heal wounds. He used the juice for the ulcers of the mouth, and in great pains of the head: he bathed the temples with it, after having mixed it with oil of roses and vinegar. *J. Baubin* added to it a little rose-water, and gave it to drink to those who had been bitten by any venomous Creature.

2. BRUNELLA major folio, non dissecto, flore albo C. B. Pin. 260.

3. BRUNELLA folio laciniato, flore albo H. R. Par. Prunella flore albo, parvo, folio laciniato J. B. 3. 429. Prunella 2. non vulgaris albo flore Clus. Hist. xliii.

I CANNOT believe that this is a variety of that which *Clusius* observed with a purple flower, about the convent of the wood of *Gramont* near *Montpelier*: these two species have been cultivated in the royal garden; but they have not been perceived to change.

4. BRUNELLA caeruleo magno flore C. B. Pin. 261. Prunella flore magno, folio non laciniato J. B. 3. 429. Prunella 1. Clus. Hist. xliii.

THE description of the *Prunella caerulea*, altera, five 3 *Tragi*, does not agree well with our plant: *Tragus* distinguished it by it's smell, which is more agreeable than that of the common Self-heal, and by it's leaves and stalks which are rougher, and of a more ashy colour; but ours is distinguished principally by the bigness of the flower, as *Clusius* observes: wherefore *J. Baubin* had more reason to prefer the *Prunella* vi. *Tragi*, to this plant. Though the comparison which this author makes of it's flower to that of *Stoechas*, is not very just.

5. BRUNELLA folio laciniato, flore purpureo C. B. Pin. 261. *Prunella laciniata*, flore magno purpureo J. B. 3. 429.

I BELIEVE we must not separate the species of which *J. Baubin* speaks, from that which is named in the *Pinax*: for the seed of the same plant produces some with large flowers, and others with small ones.

6. BRUNELLA Verbenulae folio flore caeruleo & purpurascente. *Vaill.* 22.

BRYONIA aspera, five alba, baccis rubris C. B. Pin. 297. *Vitis alba* five *Bryonia* J. B. 2. 143. *Bryonia alba* Dod. Pempt. 400. *White Bryony.* In hedges.

THE leaves are insipid, glutinous, and give no tincture of red to the blue paper: the root gives it a deep red; it is bitter, and of a very ill smell; so that the acid of the *Sal Ammoniac* which predominates in this plant,

plant, seems to be more disengaged in the roots, than in the leaves, where it is clogged with a great deal more sulphur.

By the * chymical analysis, these roots yield a great deal of fetid oil, and acid liquor, and a considerable quantity of volatile con-creted salt: the root, tendrils and seeds of *White Bryony* are powerfully cathartick, and remove obstructions and the most obstinate remains of old diseases; for which reason the use of this plant is good for the dropsey, gout, epilepsy, asthma, vapours, palsy, vertigo, and the longest diseases: the root is given in powder from one scruple to two, the juice is drank from two drams to half an ounce, and the decoction from half an ounce to an ounce, and an ounce and a half; but in what manner soever this root is used, it is good to correct it with cream of tartar, or vegetable salt. *Arnaud de Ville Neuve* says, that he has cured a person of the epilepsy, with the juice of *White Bryony*, which he made him drink for three weeks together. *Matthiolus* relates, that a lady who had tried several remedies without success, for the vapours, was cured by the advice of an herbarist, who bid her drink a decoction of the *Bryony* roots in white-wine, every eighth day, for a whole year together. Some give

* Abstract of the registers of the royal Academy of Sciences.

the juice to drink for the dropſy, which they obtain after the following manner: they uncover the root in the ſpring, and cut the top of it tranſverſly; then they hollow the reſt, and cover the whole root again with the earth, and the next day take out carefully with a ſpoon the liquor that is found in it's cavity: A ſpoonful of this juice is a gentle purge, and removes the obſtructions of the liver, pancreas, and other parts of the lower belly: An extract and a *Faecula* are alſo prepared of the roots of white Bryony. To make the extract, cut the roots ſmall, infuſe them in wine, ſtrain the infuſion thro' a cloth, and thicken it over the fire. The *Faecula* is only the dregs of the juice of the ſame root; which, whiſt it is depurating, let's it's terreſtrial and mealy parts ſettle to the ſides and bottom of the veſſel. This root is very reſolvent; externally applied it diſſolves ſcrophulous tumours and wens.

1. BRYUM trichoides, viſcens, erectis majusculis capitulis maliformibus *Dillen. Cat. Giſs. 224.* Muſcus capillaceus medius, capitulis globosis *Inſt. 551.* *On the ditch banks, a little on this ſide mother Huſſs on Hamſted-Heath, and in many other ſuch like places in February.*

2. BRYUM reſeum, minus, foliis ſubrotundis *Dillen. Syn. 92.* Muſcus parvus ſtellaris *C. B. Pin.*

FOUND by Dr. Richardson in Yorkshire.

Synops.

3. BRYUM parvum, erectis, pyriformibus, majusculis capitulis, foliolis Serpylli pellucidis *Dillen. Cat. Gifs.* 223. Muscus capillaceus minimus capitulis pyriformibus turgidis *Inst.* 553. Common on ditch banks in March and April.

4. BRYUM erectis gigartinis capitulis, foliis Serpylli, pellucidis, acutis *Dillen. Syn.* 93. Muscus capillaceus minor, capitulis geminatis *Inst.* 130. On Hinton-Moor in April and May.

Dr. SHERARD first found this elegant moss in the bogs about *Hitchin-ferry* near *Southampton*, and afterwards plentifully in the bogs by *West-Wickham* and *Addington* near *Croyden*. *Synops.*

5. BRYUM trichoides, erectis, sublongis capitulis, extremitatibus per ficcitatem stellatis *Dillen. Syn.* 98. Muscus capillaceus, minimus, muralis, stellatus *Inst.* 532. On walls.

6. BRYUM trichoides, exile, erectis capitulis, in pediculis brevissimis *Dillen. Cat. Gifs.* 224. Muscus capillaceus, omnium minimus *Inst.* 552.

SOMETIMES near hedges and on ditch banks, and sometimes in boggy places. *R. Syn. Ed.* 3. 97.

7. BRYUM caulibus & capitulis erectis, foliis gramineis, humi procumbentibus. Muscus capillaris, humilis, graminifolius, minor, capitulis oblongis erectis *Raii Hist.* 3. 36.

It sends forth it's heads in *January*, or later, according to the season of the Year.
R. Supp.

8. BRYUM minus, erectis, minus falcatis capitulis, foliis latiusculis congestis, in pilum canescentem desinentibus *Dillen. Syn. 94.* Muscus capillaceus minimus, calyptra longissima, erecta *Inst. 552. Common on walls and roofs of houses.*

9. BRYUM trichoides exile, erectis capitulis, in pediculis longioribus, rubris *Dillen. Cat. Gifs. 224.* Muscus coronatus, minimus, capillaceis foliis, capitulis oblongis *H. Ox. 3. 631. Sect. 15. Icon. Tab. 7. fig. 19.*

ON ditch banks and in woods. *R. Syn. Ed. 3. 97.*

10. BRYUM erectis capitulis, oblongis, minus rubentibus foliis oblongis, angustis, nitidis, pellucidis, valde tenuibus, & dilute virentibus, cauliculis rubentibus *Dillen. Cat. Gifs. 223.* Muscus capillaris, furculis erectis, foliis oblongis, tenuissimis, acutis cinctis *Rail Syn. 29. (Ed. 3. 95.)*

ON the roofs of houses. *Synops.*

11. BRYUM trichoides, erectis capitulis, albidum, fragile *Dillen. Cat. Gifs. 225.* Muscus capillaceus, fericeus, Coridis facie *Inst. 552.* Muscus capillaris, faxatilis, fericeoides *H. R. Monsp. On heaths.*

12. BRYUM minus, foliis capillaceis, unam partem spectantibus. Muscus capillaceus, minimus, plumosus; elegans *Inst. 552.*

IT is but half an inch or an inch high; it's leaves are bright green, as slender as the finest down: The stalk is a reddish hair, sustaining a head, which is one line long, and covered with a hood that ends in a very slender thred.

13. BRYUM majus, foliis capillaceis, pediculo tenui, capitulis longissimis & acutissimis. Muscus capillaceus, major, pediculo & capitulo tenuioribus Inst. 551.

IT is an inch or an inch and half high, very bushy, thick-set with shining green leaves, four lines long, very slender. Out of their bosoms, about the middle of the stalk, arises a red pedicle, an inch and half, or two inches long, sustaining a head one line and half long, covered with a hood, which is terminated by a little thred.

PERHAPS *this is not different from the 10th.*

14. BRYUM roseum, majus, foliis oblongis Dillen. Syn. 92. Muscus capillaceus minor, capitulo longiori, falcato Inst. 551. In moist places.

WE must retrench the pretended synonymies, which M. Tournefort has referred to this plant, and put in their room *Muscus coronatus humilis foliolis latioribus, stellatim nascentibus donatus* H. Ox. 3. 630. Icon. Sect.

15. Tab. 7. fig. 9. Vaill. 132.

15. BRYUM majus, erectis, falcatis capitulis, foliis latiusculis extantibus, in pilum canescen-

nescentem definitibus *Dillen. Syn. 94.* It grows very commonly on roofs of houses in thick tufts.

16. BRYUM erectis, longis, & acutis, falcatis capitulis, calyptra subfusca, foliis Serpylli, pellucidis, *Dillen. Cat. Gifs. 223.* Muscus capillaris corniculis longissimis, incurvis R. *Syn. 29. (Ed. 3. 92.)* On moist hillocks.

17. BRYUM trichoides, hirsutie canescens, capitulis subrotundis, reflexis, in perbrevibus pediculis *Dillen. Cat. Gifs. 226.* Muscus capillaceus, lanuginosus, minimus *Inst. 552.* Common on walls, where it is easily distinguished by its hoariness, and growing in a thick, roundish tuft.

18. BRYUM capitulis subrotundis, reflexis, cauliculis teretibus, argenteis *Dillen. Cat. Gifs. 226.* Muscus argenteus, capitulis reflexis *Raii Syn. 34. (Ed. 3. 100.)* In open and exposed places in January.

19. BRYUM trichoides, capitulis reflexis, pediculis ima medietate rubris, summa luteovirentibus *Dillen. Cat. Gifs. 226.* Muscus capillaceus, minimus, capitulo nutante, pediculo purpureo *Inst. 552.* Common on walls in January and February.

20. BRYUM capitulis reflexis, foliolis latiusculis, congestis *Dillen. Cat. Gifs. 227.* Muscus capillaceus, major, capitulis crassioribus, cylindraceis, nutantibus *Inst. 551.* Common on walls in February and March.

21. BRYUM

21. BRYUM nitidum, foliis oblongis, undatis capitulis cernuis, arbusculam referens *Dillen. Cat. Gifs.* 227. Muscus Polygoni folio *Inf.* 555.

22. BRYUM aureum, capitulis reflexis, pyriformibus, calyptra quadrangulari, foliis in bulbi formam congestis *Dillen. Cat. Gifs.*

227. Muscus capillaceus, folio rotundiore, capsula oblonga, incurva *Inf.* 551.

23. BRYUM nitidum, Serpylli rotundis & latioribus foliis, pellucidis *Dillen. Syn.* 103.

Muscus palustris, foliis subrotundis *Inf.* 555.

BETWIXT *Plumstreet* and *Crayford*, in a dark lane leading to the moor in *Kent.* *Syn.*

24. BRYUM stellatum, latifolium, capitulo nutante, pediculo longo subrubenti insidente. Muscus folio lato, subrotundo, capitulo singulari, nutante, pediculo longo subrubenti insidente. *Vaill.* 136.

25. BRYUM hypnoides repens, aquaticum, erectis capitulis, acutis *Dillen. Syn.* 94. Muscus aquaticus, pileis acutis *Mus. Pet.* 74.

OBSERVED by Mr. *John Scampton*, on the large stones that lie in the rivulets, amongst the peak-moors in *Derbyshire.* *Syn.*

26. BRYUM erectis, capitulis, calyptra laxa conica; foliis Serpylli pellucidis, angustioribus *Dillen. Cat. Gifs.* 223. Muscus capillaceus, minimus, calyptra longa, conoidea, nitida *Inf.* 552. *The Extinguisher Moss.*

OBSERVED by Mr. *Pool* about *Nottingham*, and Mr. *Vernon* in *Essex*, at Sir *Th. Middleton's* house. *R. Syn. Ed.* 3. 93.

27. BRYUM hypnoides, capitulis plurimis, erectis, lanuginosum *Dillen. Syn.* 27. Muscus capillaceus, densissimus, lanuginosus *Inst.* 551. *Feather-bed Moss.* I found it growing in great plenty on the rocks, near *Matlock-Bath* in *Derbyshire*. Sir *Hans Sloane* shewed me the very same, received from the streights of *Magellan*.

28. BRYUM trichoides, erectis capitulis, lanuginosum *Dillen. Cat. Gifs.* 224. Muscus capillaris, lanugine canescens, pediculis tenuibus, oblongis, capitulis in mucrones longos recta sursum exporrectis *Raii Syn.* 31. (*Ed.* 3. 97.)

ON *Black-Heath* and *Dartford-Heath.*
Synops.

29. BRYUM capitulis oblongis, rubentibus, foliis oblongis, angustis, pellucidis, rugosis *Dillen. Cat. Gifs.* 222. Muscus squamosus *Linariae folio*, minor & crispus, capitulis incurvis *Inst.* 554. Common on shady banks in January and February.

1. BUGLOSSUM angustifolium; majus *C. B. Pin.* 256. Buglossum vulgare, majus *J. B.* 3. 578. Buglossa Italica *Trag.* 232. *Bugloss.*

TRAGUS has a good figure of this plant. That of *Dodonaeus* is not bad; but we must cite *Buglossa vulgaris Dodonaei*, and not *Anchusa Alcibiadion Dod.* as they have done in the

the *Pinax*. *Lobel* was in the wrong to make use of this last figure of *Dodonaeus* to represent the *Bugloss*, and it is that perhaps which has deceived *C. Bauhin*.

THE roots are very glutinous, and give a deep tincture of red to the blue paper. The flowers give it but very little, and the leaves hardly any at all: So that probably the *Sal Ammoniac* in this plant is involved in a glutinous juice, in which the earth and sulphur predominate. The *Bugloss* moistens, cools, and gives great relief to melancholy persons; it is good to dissipate the defluxions of the breast, and an obstinate cough. The juice is drank from three ounces to six. The ptisan is taken by glassfuls. The roots and leaves are used in cooling broths, and this plant cools no otherwise than by restoring the motion of the blood, which stagnates and heats the parts wherein it's circulation is retarded. *Bugloss* flowers are used after the manner of tea. A conserve is made of the same flowers which are usually counted amongst the cordial flowers. The syrup made with the juice of the leaves of *Bugloss*, gives great relief to melancholy persons: This juice is employed in the simple Byzantine syrup, and the compound one of Mesue. It enters also as an ingredient in *Fernelius's* syrup of Spleenwort.

2. BUGLOSSUM sylvestre minus C. B. Pin.
256. *Echium Fuchsi*, sive *Borrago sylvestris*

tris J. B. 3. 581. Buglossa fylvestris Dod. Pempt. 628. *Small, wild Bugloss. Amongst corn, and in fallow fields.*

THIS plant is well described in Mr. Ray's history of plants: * *Fuchs*'s figure is good; but to accommodate himself to a description of *Dioscorides*, he affirms, that it has purple flowers. *J. Baubin* says, they are between a purple, and a violet. Mr. Ray has observed them better than any of them; they are of a sky-blue. *Tragus* made use of this plant instead of *Borrage*; and the apothecaries of *Antwerp* use it (according to *Lobel*) in the room of Bugloss.

3. BUGLOSSUM angustifolium femine echinato Inst. 134. Cynoglossum minus C. B. Pin. 257. J. B. 3. 600. Cynoglossa minor Plinii Col. part. 1. 179.

COLUMNA has given a good figure and description of it. *C. Baubin* had no reason to separate from it the *Cynoglossum medium* Pin. we must refer to it also the *Heliotropium minus* III. *Tabern. Icon.* 549. which he has ranged under the *Echium scorpioides, arvense* Pin. The figure of the *Cynoglossum pusillum Narbonense* Lob. does not agree with our plant: *Lobel* and *Pena* seem rather to have intended to describe some variety of the common Hounds-tongue; or perhaps they designed to represent the *Cynoglossum Creticum*,

* Hist.

argenteo angusto folio Pin.; for the figure of the *Cynoglossum pusillum*, *Narbonense* Lugd. which is but a copy of *Lobel's*, bears no ill resemblance to this species. It is difficult to know whether our Bugloss is the *Cynoglossi* genus *parvum* of *Caesalpinus*; for this author says only, *Oritur in sylvestribus, angusto folio, ac lappis minutis*: How shall we decide also, whether it is the *Cynoglossum parvum Italicum* of *Camerarius*, who does no more than name it? We can say with no more certainty, whether it is the *Cynoglossa minor* Cord. * It is ill described and engraven in *Tragus* § under the name of *Elatine*.

4. BUGLOSSUM arvense, annuum, Lithospermi folio Inst. 134. Lithospermum nigrum quibusdam, flore albo, semine Echii. J. B. 2. 592. Lithospermum arvense, radice rubra C. B. Pin. 258. Echioides alba Col. part. 1. 185. *Bastard Alkanet. Amongst corn. It flowers in May.*

THE figure of the *Hist. Lugd.* is very bad. This plant is often much smaller in the hot, than in the cold countries, and answers perfectly well to the figure and description of the *Echioides alba* of *Columna*; so that we ought not to distinguish the *Echium purnilum, album* C. B. Pin. from this plant.

1. BUGULA Dod. Pempt. 135. Consolida media, pratensis caerulea C. B. Pin. 260.

* Cord. Diosc. 71.

§ Trag. 162.

Consolida media quibusdam. Bugula J. B. 3. 430. *Bugle. In woods and moist meadows.*

THIS plant is bitter, deterfive, and gives a faint red colour to the blue paper: It is employed in the vulnerary potions, ptisans, and apozemes for spitting blood, the dysentery, whites, diseases of the throat, ulcers and thrushes in the mouth: The clarified juice of Bugle has the same virtues; it is used in plaisters: This plant is aperitive also, and diuretick. *Camerarius* and *Dodonaeus* prescribed it for the obstructions of the liver; it contains some *Sal Ammoniac* involved in sulphur.

2. BUGULA sylvestris, villosa, flore caeruleo Inft. 209. *Consolida media Genevensis* J. B. 3. 432. *Consolida media, pratensis, hirsuta* H. R. Par.

THIS is probably the *Consolida media* II. *Tabern. Icon.* 555. For *Tabernaemontanus's* figure represents it very hairy, but the leaves are above the natural bigness.

3. BUGULA sylvestris, villosa, flore suaverubente Inft. 209. *Consolida media Genevensis flore rubello* J. B. 3. 432. *Mountain-Bugle or Sickle-wort.*

FOUND on *Carnedh Lheuwellyn* in *Caernarvonshire.* *R. Syn. Ed.* 3. 245.

CLUSIUS's figure is not bad: But his description does not agree with it, for he does not mention it's being hairy. He affirms, that it differs from the common Bugle, only
in

in being smaller, and having flesh-coloured flowers.

4. *BUGULA sylvestris*, villosa, flore albo Inft. 209. *Consolida media Genevensis* flore albo J. B. 3. 432.

BULBOCASTANUM majus, folio Apii C. B. Pin. 162. *Bulbocastanum* J. B. 3. part. alt. 30. *Bulbocastanum* Dod. Pempt. 334. *Earth-nut*, *Pig-nut*, *Kipper-nut*, *Hawk-nut*. In pastures and bushy places, chiefly in a sandy soil.

THERE are two figures of this plant in the *Hist. Lugd.* * that of the *Bulbocastanum mas Tralliani*, and that of the *Bulbocastanum grandius* Dod. *Bunium*; but neither of these figures are good, though the roots are better represented in the first than in the second; the description of which is better however than that of the first, where the leaves are compared to Fennel; but in the second they are compared to Parsly. It is very probable that *Matthiolum* intended to engrave the *Bulbocastanum* under the figure of the *Oenanthe* I. but this figure is very imperfect. *Camera-rius* § has added Umbels to it. *J. Bauhin* has given a sorry figure of it, but he has described it very well: He could not believe that it was the *Pancascolus* *Caesalp.* for this author has compared it's leaves to those of

* Lugd. 773 & 774.

§ Cam. Epit. 609.

Geranium

Geranium or *Anemone*, and says that it's flowers are purple. Mr. Ray had reason to be in doubt whether we ought to make two species of *Bulbocastanum*, as we see in the *Pinax*; for we can form no judgment from what *Camerarius* and *Lonicer* * have said of it. The first expresses himself thus, *Bulbocastanum alterum, minoribus foliis & bulbis in tractu Rhenano frequens*; the other describes it no better. There is however a little *Bulbocastanum*, which grows in the clefts of the rocks in *Provence* and *Languedoc*, and does not change by culture. I have called it *Bulbocastanum minus, saxatile, Peucedani folio* *Inst.* and *Columna* § has engraved it under the name of *Cyminum bulbosum*. *C. Bauhin* was mistaken when he referred this plant to the *Oenanthe Apii folio* *Pin.*

I SUSPECT there is some difference between the *Bulbocastanum* which grows about Paris, and that which we commonly find in England. The segments of our plant are very fine, and much nearer *Fennel* than *Parsley*. I once found a single specimen, which I have preserved in my collection, between *Hornsey-Wood* and *Old-Fall*, with leaves divided almost like *Parsley*, which probably was owing to the root's growing nearer the surface than we commonly find it. When I first gathered it, I

* *Lon.* tom. 11. 25.

§ *Col.* part. alt. 20.

suspected

suspected it to be a different species, of which opinion Dr. Dillenius, to whom I shewed it, seems to have been by a note in his Edition of Ray's Synopsis, p. 209.

1. BUPLEURUM angustifolium Tabern. Icon. 872. Bupleurum folio subrotundo, five vulgatissimum C. B. Pin. 278. Auricula leporis umbella lutea J. B. 3. part. 2. 200.

IT's under-leaves are sometimes oval, and much larger than the others: Both they and the root are well drawn in *Tragus's* figure. This plant is very well described in *Cordus*, who calls it *Hysophyllon*, and makes use of *Tragus's* figure: The figures of other authors represent only the leaves which accompany the stalk of this *Bupleurum*, and resemble those of Dog's grass: Which is the reason that they very well express another plant also of the same family, which grows in *Provence* and *Languedoc*, but is annual: M. *Magnol* has named it *Bupleuron annuum angustifolium Bot. Monsp.* he observes that it is the *Auricula Leporis Monspeliensis Plantaginis minoris folio Gesn.* *Dodonaeus's* figure represents it not amiss. C. *Baubin* has confounded *Gesner's* plant with that of which we are speaking.

2. BUPLEURUM angustissimo folio C. B. Pin. 278. Bupleurum minimum Col. Ec. 1. 247. Auricula Leporis minime J. B. 3. 201. *The least Hare's-Ear.*

NEAR *Ellesly*, in the road to *St. Neots*; on a bank by the northern road, a little beyond *Huntingdon*; at *Maldon* in *Essex*, in the marshes by the river's side; at *Hastings* in *Suffex*, beside the little brook that runs by the castle; and near the ferry in the isle of *Thanet*. *Syn. Stirp. Brit. Ed. 3. p. 221.*

IT flowers in *July* and *August*. Its seeds are scarce a line long, brown, rounded at the back, which is raised with three almost imperceptible ribs; their belly is very narrow. *Vaill.*

3. BUPLEURUM perfoliatum, rotundifolium, annuum *Inst. 310.* Perfoliata vulgarissima five arvensis *C. B. Pin. 277.* Perfoliata simpliciter dicta annua, vulgaris *J. B. 3. part. 2. 198.* Perfoliata *Dod. Pempt. 104.* *Thorough-wax.* Amongst the corn. I have never found it near *London*; and but once near *Cambridge*, in the corn between *Queye church* and *Bottesham*. It flowers in *July*.

BURSA pastoris major, folio finuato *C. B. Pin. 108.* Bursa pastoria *J. B. 2. 936.* *Dod. Pempt. 103.* *Shepherds-purse.* On walls and in waste places.

DODONAEUS's figure is very good.

IT is of an herby taste, a little saltish, and deterfive. The juice of its leaves gives a faint red colour to the blue paper, which gives us reason to imagine, that in this plant the *Sal Ammoniac*, which is natural in the salt of the earth, predominates over the other princi-

principles : this Sal Ammoniac is dissolved in a considerable quantity of flegm, and is tempered by a good deal of earth, and a little sulphur.

THIS plant does not yield much acid, by a * chymical analysis; almost all that is extracted from it is alkaline.

THERE are but few plants which yield more concreted volatile salt, fixed lixivial salt, and earth. These principles mixed together, render the Shepherd's-purse proper to dissolve the blood when it is thicken'd by foreign acids, which hinder it from passing with its ordinary velocity from the arteries into the veins; to which we may refer the greatest part of defluxions. Besides, the earth, which is in this plant, easily imbibes the serosities, which occasion a relaxation of the fibres; thus by the consent of all authors, it is vulnerary and astringent; it is believed also to be febrifugous and lenitive. The juice of it's leaves drank, from four ounces to six, is an excellent remedy in all losses of blood, and in defluxions attended with an inflammation: they boil a handful of it in lean broth, and employ it in ptisans, glysters, and cataplasms: it's distilled water has little or no virtue; it is nothing but the flegm separated from the other principles.

* Extract of the registers of the royal academy of sciences.

It is found almost all the year; for it propagates itself by seed towards the end of the summer.

1. BUTOMUS Caesalp. 553. Juncus floridus, major C. B. Pin. 12. Juncus floridus J. B. 2. 508. Gladiolus aquatilis Dod. Pempt. 601. *The flowering Rush, or Water-Gladiole. In deep ditches.*

2. BUTOMUS flore albo Inft. 271. Juncus floridus, major, flore albo H. R. Par. Calamagrostis altera, floribus candidis Trag. 676.

TRAGUS's figure of the Flowering-Rush is deficient, in that it's flowers are disposed in a spike; whereas they ought to have been placed in an umbel. His comparing it's flowers with those of the *Calebasse*, seems to be not very just; the *Hist. Lugd.* follows him in this mistake.

THE *Butomus* flowers in *July*, and about the end of *June*. It's flowers are about an inch in diameter, consisting of six petals, three larger and three smaller, disposed alternately, nine chives, no empalement, and an ovary contained within the petals, becoming afterwards a fruit, raised with six ribs, terminated by as many points, and divided into six cells. The flower may be said to consist of three petals, with a three-leaved empalement. *Vaill.*

BUXUS arborescens C. B. Pin. 471. Buxus J. B. 1. 496. Dod. Pempt. 782. *The Box-tree. Box-hill in Surrey takes it's name from this*

this tree, which formerly grew there in great abundance, though it is now almost all cut down. There are woods of it also at Boxwell, in Coteswold, in Gloucestershire, and at Boxley in Kent.

TRAGUS took the embryo of the fruit of this tree for it's flower. *Caesalpinus*, *J. Bauhin* and Mr. *Ray*, thought that the fruit succeeded the flower. It is certain, however, that they grow in separate places, though upon the same plant. I have engraved them exactly. *

THE leaves of the Box are bitter, have an ill smell, and give a faint red to the blue paper. We obtain from the wood a little acid spirit, and a fetid oil. *Quercetan* esteems this oil very much for the epilepsy, the vapours, and the tooth-ach. Being rectified and circulated afterwards with a third part of good spirit of wine, it is very sweetning and aperitive. They give fifteen or twenty drops of it mixed with sugar or Liquorice powder. They mix this oil unrectified, with melted butter, to anoint cancers. A liniment is made of it with oil of St. *John's-wort*, for the rheumatism and gout. *Etmuller*, and several other authors maintain, that one may substitute the Box in the room of the *Guaiacum*, Juniper or Sassafras, and the roots of

* Inst. Tab. 345.

Butterbur and Bennet, in the room of the *Sarsaparilla*.

THE flowers grow in bunches. The female flower occupies the middle of the bunch, and is encompassed with several male flowers. Each male flower consists of four summits, each sustained by a chive, covered with a naked petal, which is divided into four segments. The female flower consists of an ovary, adorned with a triple style, and covered with several petals lying over one another, like scales. The tree flowers in March and April.

1. *Byssus argenteus Omenti forma*. *Corallo fungus argenteus, Omenti forma* an *Fungus ramofus candidus* C. B. Pin. *Vaill.* 41.

2. *Byssus pulverulenta incana farinae instar strata* *Dillen. Syn.* 56. *Noftoc ligno putrido adnascens, candicans.* *Vaill.* 144. *Common on rotten wood in winter.*

3. *Byssus arborea nigricans*. *Noftoc nigricans, arboribus innascens.* *Vaill.* 144.

4. *Byssus arborea, barbata, fulvi coloris* *Dillen. Syn.* 57. *Noftoc flavicans arboribus innascens. Fungus putridis arborum ramis inhaerens, plurimis simul cohaerentibus* C. B. Pin. 372. *Fungi dicti Spongiae lignorum perniciosi* J. B. 3. lib. 40. p. 141. *Vaill.* 57.

I. *CALAMINTHA vulgaris vel officinarum Germaniae* C. B. Pin. 228. *Calamintha magno flore, vulgaris* J. B. 3. part. 2. 228. *Calamintha montana* Dod. *Pempt.* 98. *Com-*

mon Calamint. By high-way sides, and on banks, but not very common.

THIS plant is full of an aromack, oily, volatile salt; it is stomachick, diuretick, aperitive and provokes the *Menses*; it must be used after the manner of tea. The decoction of it given in a clyster, assuages the colick, resolves oedematous tumours, and strengthens the parts.

It flowers in *June, July* and *August*.

2. CALAMINTHA Pulegii odore five Nepeta C. B. Pin. 228. Calamintha flore minore, odore Pulegii J. B. 3. part. 2. 229. Pulegium sylvestre, five Calamintha altera Dod. Pempt. 98. *Field Calamint.* This is frequently found on banks, and by road sides. It flowers in *July* and *August*.

CALTHA arvensis C. B. Pin. 276. Calendula minima. J. B. 3. 103. Calendula arvensis Tabern. Icon. 335. *Wild Marigold.*

THIS plant varies very much with respect to it's bigness, especially in the vineyards about *Paris*: *C. Baubin* observed it along the *Seine*, where it was but three or four fingers high: He has called it *Caltha humilis* & *minima* Pin. and in the *Phytopinax* *Caltha humilis*: Nevertheless how little soever it may be, it is not different from the wild one; for being sown in the royal garden, it became like that of which we are speaking.

It's leaves are stinking, bitter, and give a faint tincture of red to the blue paper: if

burnt in the candle, they crackle a little like nitre; which seems to shew, that the natural salt of the earth is arrived there, with hardly any other change than being united with a great deal of fetid sulphur and earth: some prefer the Wild Marigold to that of the gardens. It's juice is given from one ounce to four: they mix an ounce of it with a dram of the powder of earth-worms, which has been imbibed a little before with some drops of spirit of Sal Ammoniac; the infusion of the leaves and flowers of Marigold is taken from three ounces to six, the extract and the conserve from one dram to two. All these preparations are excellent for the jaundice, palsy, dropfy, small-pox, malignant fevers and green-sickness: it's leaves and flowers are good to eat as a sallad, especially for children who have scrophulous tumours. *Caesalpinus* prescribed the water of Marigold for contagious distempers: *Tragus* commended it as an excellent remedy to cure the redness and inflammation of the eyes. *Caesalpinus* syringed the juice of Marigold into the ears to kill the worms, and applied the powder with cotton to the teeth which ached violently: to restore the appetite, he advised to use the flowers in bud pickled in vinegar. At *Paris* they apply it's leaves to all sorts of tumours, and ulcers which have callous edges. For corns, they put some leaves between

tween the corn and the flocking, and do not forbear walking.

I. CAMPANULA minor, rotundifolia, vulgaris C. B. Pin. 93. Campanula parva, Anguillarae Cantabrica J. B. 2. 796. Campanula sylvestris, minima Dod. Pempt. 167. *The lesser round-leaved Bellflower. On the borders of fields and in hedges.*

DODONAEUS has given a good figure of this plant. C. Bauhin was in the right to separate from this, that species of *Bellflower* which grows upon the rocks of the *Alps*, and which * *Clusius* has named *Campanula minor, Alpina, rotundioribus imis foliis*: but it is not over-well represented in the new figure of the *Prodromus*, for it's root spreads itself on all sides in the clefts of the rocks, and the whole plant forms a very thick tuft, flatted down, as it were, upon the rocks; as I have observed in several parts of the *Alps*, and especially at *la Sainte Baume*; and upon the rock *de Victoire* (which is called *Sante Venturi*) near *Aix* in *Provence*, where it is much lower and more bushy: perhaps J. Bauhin confounded these two only because *Clusius* made use of the figure of this to represent that of the *Alps*. § *Morison* describes this last species pretty well, though I never observed that it's root was tuberous, as he affirms. That which grows at *Paris* is a

* Clus. Hist. clxxii.

§ Mor. Hist. 456.

pretty

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§ Mor. Hist. 456.

pretty

pretty spreading plant, and one finds upon the same plant some stalks which have their under and middle leaves notched. There are other stalks that are accompanied with hardly any but narrow leaves, like those of Toad-flax: thus *J. Bauhin* had reason to doubt whether that which his brother has called * *Campanula Alpina, linifolia, caerulea*, is different from the common one, which, when it's under-leaves are gone in the summer, answers *J. Bauhin's* description well enough. *M. Magnol*, so skilled in the knowledge and culture of plants, has given a figure of it; but he recollected afterwards that it pushed forth leaves also round and notched.

2. CAMPANULA minor, rotundifolia, vulgaris, flore albo C. B. Pin. 93.

3. CAMPANULA hortensis, Rapunculi radice C. B. Pin. 94. Campanula repens, flore minore, caeruleo J. B. 2. 806.

4. CAMPANULA vulgatio, foliis Urticae, vel major & asperior C. B. Pin. 94. Campanula major & asperior, folio Urticae J. B. 2. 805. Cervicaria major Dod. Pempt. 164. *Great Throat-wort or Canterbury-bells. It is found in hedges in many parts of England, but not near London that I know of.*

TRAGUS says, that the stalks of this plant are square; but they are only angular. *Ca-*

* C. B. Prod. 34.

salpinus, *Dodonaeus*, and almost all the authors affirm, that it is vulnerary; and especially, that it cures the ulcers and swellings of the throat: whence it has been called *Cervicaria* and *Uvularia*. The seed being cultivated in gardens, produces Plants with a white flower, and others with leaves not so rough, and violet coloured flowers, tending to blue. It is probably that which *Dodonaeus* has called *Cervicariae majoris altera species*; and *C. Bauhin*, *Campanula Urticae foliis oblongis, minus asperis Pin.*

5. CAMPANULA pratensis, flore conglomerato *C. B. Pin. 94.* Trachelium minus multis *J. B. 2. 800.* *Cervicaria minor Dod. Pempt. 164.* *Little Throatwort or Canterbury-bells.* In many places in a chalky soil, but not near London.

THIS plant does not seem to be different from the *Rapunculus sylvestris, umbellatus 2. Thal. Icon. viii.* though *C. Bauhin* has separated them. The figure of the *Symphytum petraeum*, *Consolida petraea 1. Tabern.* represents it much better than that of the *Cervicaria minor*, which *C. Bauhin* has referred to it: This plant being cultivated in Gardens varies very much in the Disposition of it's flowers: The seed of it produces there some plants with white flowers, and which do not appear to be different from that which *C. Bauhin* has named *Campanula Alpina*,
sphaero-

sphaerocephalos Pin. which is the *Trachelium majus*, *petraeum* Ponaë.

6. CAMPANULA angustifolia, caerulea J. B. 2. 803. Rapunculus Persicifolius, magno flore C. B. Pin. 93. Campanula angustifolia Tabern. Icon. 317.

J. BAUHIN suspects this species to be the same with the *Rapunculus nemorosus* II. & III. of * *Tabernaemontanus*, but C. Bauhin was in the right to separate them. They are found in the Alps as *Tabernaemontanus* has engraved them: perhaps these two last differ only in their bigness. § *Matthiolus's* figure of this plant, under the name of *Phyteuma*, is very bad.

7. CAMPANULA radice esculenta, flore caeruleo H. L. Bat. Rapunculus esculentus C. B. Pin. 92. Rapunculus vulgaris, Campanulatus J. B. 2. 796. Rapunculum Dod. Pempt. 165. *Rampions*. On ditch-banks.

It is not so easy as *Fuchsius* imagined, to find in this plant the marks attributed by *Dioscorides* to the wild Rape. His bears a cod, the shells of which, when they are open, shew another cod in form of a head, which incloses seeds black without, but white within. *Pena* and *Lobel* have taken the flowers of this plant to be tetrapetalous, which they say is of the same structure with

* Tabern. Icon. 411. & 412.

§ Matth. 192.

that

that of flax; but the flower of the flax is pentapetalous, and this monopetalous. Every body knows that the Rampions are eaten in fallads in the spring.

THE *three following species, according to several authors, constitute a different family under the name of Speculum Veneris.*

8. CAMPANULA arvensis, erecta H. L. Bat. Onobrychis arvensis, vel Campanula arvensis, erecta C. B. Pin. 215. Pentagonion, viola pentagonia Tabern. Icon. 316. Viola arvensis ejusdem 304.

THE root of this plant is usually eaten as a fallad in the spring.

9. CAMPANULA arvensis, procumbens Inst. 112. Campanula arvensis, minima Dod. Pempt. 168. Avicularia sylvii quibusdam J. B. 2. 800.

10. CAMPANULA Cymbalariae foliis vel folio hederaceo C. B. Pin. 93. Campanula Cymbalariae foliis Prod. 34.

11. CAMPANULA angustifolia, alba J. B. 2. 802.

1. CANNABIS erratica C. B. Pin. 320. *Wild Hemp. On dunghils.*

2. CANNABIS sativa C. B. Pin. 320. *Manured Hemp. This is much sown in the isle of Ely.*

1. CAPRIFOLIUM Germanicum Dod. Pempt. 411. Periclymenum non perfoliatum, Germanicum C. B. Pin. 302. Periclymenon plurimis, sive Caprifolium non perfoliatum J. B.

J. B. 2. 104. *Common Honey-suckle or Woodbind. In the hedges.*

It's leaves are insipid, stiptick, stink like a dog-kennel, and give a faint red colour to the blue paper: the roots give it a deeper: their bark is acrid, saltish, stiptick and stinking: it's salt resembles the *Sal Ammoniac*, but is united with some fetid oil and earth. The decoction of Honey-suckle leaves is vulnerary and deterfive, good for the diseases of the throat, and wounds of the legs: the bruised leaves cure the diseases of the skin: the distilled water of the flowers assuages the inflammation of the eyes, and strengthens women in labour: three ounces of it are given to drink, mixed with one ounce of Orange-flower-water. *Rondeletius* on these occasions prescribed the water of Honey-suckle with Lavender-seed.

2. CAPRIFOLIUM non perfoliatum, foliis sinuatis Inst. 608. Periclymenum foliis quercinis Mer. Pin.

Not far from *Oxford*, *Mer. Pin.* Found by Mr. *Knowlton* in the way from *Hitchin* to *Wembly*. *Syn. Ed.* 3. p. 459.

1. CARDAMINE pratensis, magno flore purpurascens Inst. 224. Nasturtium pratense, magno flore C. B. Pin. 104. Iberis Fuchsi, five Nasturtium pratense, sylvestre J. B. 2. 889. Flos Cuculi Dod. Pempt. 592. *Ladies-smock or Cuckow-flower. In moist meadows.*

TRAGUS

TRAGUS believes the Water-cress degenerates into this; but it is certainly a different species.

2. CARDAMINE pratensis, magno flore albo Inst. 224. Nasturtium pratense, magno flore prorsus albo C. B. Pin. 104.

3. CARDAMINE pratensis, flore majore, elatior Inst. 224. Nasturtium aquaticum amarum Park. 1239. *Bitter Cresses. In boggy and watery places.*

THE petals are expanded, white, equal, entire. The empalement also is expanded, and has two little ears. The chives are white, and sustain purple summits. Being chewed, it has no bitterness, but a very biting taste, and stronger than that of Water-cress. It flowers in *April* and *May*.

CARDIACA J. B. 2. 320. Marrubium Cardiacum dictum, forte 1. Theophrasti C. B. Pin. 230. *Mother-wort. On the bank by the road side just beyond the paper mills, in the way from Cambridge to Newmarket, and about Well in the isle of Ely. Mr. Gilks has observed it in great plenty also, in the lanes about Burton upon Trent.*

CARDUUS albis maculis notatus, vulgaris C. B. Pin. 381. Carduus marianus, five lacteis maculis notatus J. B. 3. 52. Carduus leucographus Dod. Pempt. 722. *Common Milk-thistle or Ladies-thistle. In waste places.*

MATTHIOLUS has but a sorry figure of it.

It's

It's leaves are bitter, astringent, and give but a very faint red colour to the blue paper: they seem to contain a salt resembling the *Oxyfal diaphoreticum Angeli Salae*, that is, an acrid salt, abounding with acid; thus it is fudorifick and diuretick. Four ounces of the juice of it's leaves give great relief in the dropfy: an emulsion made with two drams of the seed of this *Thistle*, and fix ounces of the distilled water of it's leaves, cures that sort of rheumatisms of the breast, which is sometimes confounded with the pleurify: the same emulsion may be of great service in the pleurify itself and peripneumony: the juice of this plant is affirmed to be febrifugous: four ounces of it must be drank at the access of the paroxysm.

M. VAILLANT make a distinct family of the *Milk-thistle*, under the name of *Silybum*; and calls this species *Silybum albis maculis notatum, flore purpureo, Mem. de l'Acad. 1718.*

2. *CARDUUS tomentosus, Acanthi folio, vulgaris Inst. 441. Spina alba tomentosa, latifolia, vulgaris C. B. Pin. 382. Spina alba sylvestris Fuchfio J. B. 3. 54. Acanthium vulgare, flore purpureo Tabern. Icon. 686. Common Cotton-thistle. By way sides, and on waste places.*

M. VAILLANT makes another distinct family of this also, under the name of *Onopordon*; and calls this species *Onopordon vulgare, flore purpureo, Mem. de l'Acad. 1718.*

3. CAR-

3. *CARDUUS nutans* J. B. 3. 56. *Cirsium majus*, singulari capitulo, magno C. B. Pin. 377. *Cirsium* 3. totâ suâ stirpe magis spinosum Dod. Purg. 452. *Cirsium* 3. *Dodonaei* Clus. Hist. cl. *Musk-thistle*, with a bending head. This is one of the most common thistles about Cambridge: but is not very common about London.

WE have no good figure of this plant, which is nevertheless one of the most common about *Paris*: * *Gerard's* figure, who calls it *Carduus moschatus*, is taken from *Dodonaeus*, † who made use of it to represent the *Acanthium alterum*. The figure of the *Drypis Loniceri* § *Lugd.* in some measure represents this plant, and much better than that which is in the same book, under the name of *Drypis*. *C. Baubin* believed that it was the *Cirsium majus* §§ *Lob.* *Cirsium majus*, singularibus capitulis ejusd. ** *Obs.* but the figure does not at all resemble it; and I rather believe that *Lobel* has engraved the *Cirsium Anglicum* with many heads, as one finds it sometimes in marshy places.

It flowers in *June*, *July* and *August*. It's flower has no crown; the scales of the em-palement are entire; the seeds are shining, polished, smooth, and crowned with hairs: *Vaill.*

* Ger. 1174. † Pempt. 721. § Lugd. 1479 & 1480.
 §§ Lob. Icon. 572. ** Obs. 314.

4. *CARDUUS nutans* flore albo J. B. 3. 56. *Cirsium*. 3. *Dodonaei*, niveo flore Clus. Hist. cl.

5. *CARDUUS Acanthoides*, J. B. 3. 56. *Wetted Thistle with small flowers*. On banks and in waste places.

I NEVER saw any good figure of it; Mr. Ray confounds it with the *Polyacanthos Theophrasti* * *Lugd.* which, by the consent of the author of this history is the same with the following.

IT flowers about the middle of *May*, and in *June* and *July*. It's flower is of a bright purple colour, and has no crown. The scales of the empalement are entire, and hardly prick at all. The seeds are gray, and crowned with white hairs. *Vaill.*

6. *CARDUUS caule crispo* J. B. 3. 59. *Carduus spinosissimus, angustifolius, vulgaris* C. B. Pin. 385. *Carduus sylvestris* 3. *Dod. Pempt.* 740. *Thistle upon Thistle*. Very common on banks.

THE seeds are smooth, shining, gray, and crowned with white hairs. The heads are about nine lines long, when the flower is blown, and four or five lines diameter, in the thickest part of the empalement. It flowers in *July* and *August*. The flower has no crown, it is of a deep purple colour;

* *Lugd.* 1473.

the scales of the empalement are entire, and not prickly. *Vaill.*

7. *CARDUUS lanceatus, latifolius, C. B. Pin. 385. Carduus lanceolatus, five sylvestris Dodonaei J. B. 3. 58. Carduus lanceolatus Tabern. Icon. 669. Spear-Thistle. In hedges and waste places abundantly.*

TABERNAEMONTANUS's figure of it is excellent; but that of *J. Bauhin* is naught; he believes it to be the *Carduus sylvestris* * *Dod.* and the *Carduus vulgatissimus viarum, Onopryx Guilandini* of § *Lobel*, the figure of which is transposed. *C. Bauhin* has separated that of *Dodonaeus* from that of *Tabernaemontanus*: I believe it however to be the same plant; but *Dodonaeus* is by no means excusable for having advanced, that the stalk of his is lower than that of the wild *Carline-thistle*, which he calls *Carduus sylvestris alter*, the figure of which also is transposed.

8. *CARDUUS capite rotundo, tomentoso C. B. Pin. 382. Carduus capite tomentoso J. B. 3. 57. Carduus eriocephalus Dod. Pempt. 723. Woolly-headed-thistle. In the chalk-pit Close at Cherry-Hinton; and by the road sides in Huntingdonshire plentifully.*

C. BAUHIN believed there are four figures of this plant in the *Hist. Lugd.* but we must observe the figure of the *Carduus eriocephalus*

* *Pempt. 719.*

§ *Obs. 459.*

Dodonaei, is put in the 1474 page, instead of the *Facea lutea Clusii*; and that of the *Facea lutea Clusii* is transposed to the 1488 page, instead of the *Carduus eriocephalus Dodonaei*: As for the *Acanthium montanum Dalechampii Lugd.* I do not believe it can be referred hither; but rather to some of the species of Thistle with *Acanthus* leaves, found upon the *Alps* and *Pyrenees*, of which I spake in my observations. *Dalechampius* says, that his *Acanthium montanum* is found upon the mountain *Jura*. Mr. Ray supposes the *Carduus, capite rotundo tomentosus Pin.* to be the same with the *Carduus, tomentosus capite majore Pin.* though *Pena* and *Lobel* seemed to have designed to engrave the *Carduus lanceatus, ferocior J. B.* and besides the plant called by * *Caesalpinus spina Arabica*, seems to differ pretty much from that which he calls *Spina altera*.

§ *BORELLUS* says, it's juice or bruised leaves cure the cancer of the nose and breast: He calls it *Ornipodon*, and recommends the frequent use of it in those cases.

9. *CARDUUS stellatus, luteus, foliis Cyani C. B. Pin. 387. Spina solstitialis J. B. 3. 90. Dod. Pempt. 734. St. Barnaby's Thistle.*

By the hedges not far from *Cirencester* in *Gloucestershire*. *R. Syn. Ed. 3. 196.*

* *Caesalp. 530.*

§ *Obs. 55. Cent. 11.*

DODONAEUS's figure is better than *Lobel's*. The under leaves are represented not amiss in the *Hist. Lugd.* * under the name of *Leucacantha quorundam*. *Gesner* † probably knew this plant under the name of *Spina citrina vel lutea*, and under that also of *Spina solstitialis*: He affirms that it is good for the jaundice. *Camerarius* says the same thing, and commends it in all sorts of obstructions, for the cachexy, dropsy, pleurisy, and sciatica. *C. Baubin* has confounded it with the *Carduus stellatus*, *mitior*, *Apulus*, *Spina solstitialis*, *altera Col.* § which is entirely different from our plant.

10. CARDUUS stellatus, five Calcitrapa J. B. 3. 89. *Carduus stellatus*, folio Papaveris erratici C. B. Pin. 387. *Hippophaestum* Col. Phytob. 107. *Spinatella* Tabern. Icon. 701. *Star-thistle*. Common in waste places.

WE have no good figure of this plant: That of *Columna* has not the leaves enough cut.

It's leaves are very bitter, and give a faint tincture of red to the blue paper, the root gives it a deeper, and has the taste of an *Artichok*. The *Star-thistle* contains a salt very like that which is natural in the earth, for it's solution is very bitter, and loaded with *Sal Ammoniac* and nitre, as we have

* Lugd. 1464.

† Hort. 382.

§ Col. part. 1. 30.

shewn elsewhere: It is likely that the *Sal Ammoniac* predominates in this plant, for the nitre makes no impression upon the blue paper; whereas the *Sal Ammoniac* reddens it considerably: That which is found in this plant is joined with a considerable quantity of sulphur and earth; thus the *Star-thistle* is febrifugous, vulnerary, and aperitive. For an intermitting fever they give to drink at the beginning of the fit, four or six ounces of it's juice: It removes the webs of the eyes, and cures wounds.

M. DE LAMOIGNON, *Intendant* of *Languedoc*, has been willing the publick should enjoy the benefit of a remedy, by which he was cured of a troublesome nephritick colick, with which he was often afflicted. The remedy, as it was printed at *Montpelier*, by his order, is as follows;

“ The 28th day of the moon every
 “ month, drink early in the morning a glass
 “ of good white-wine, in which has been
 “ infused a dram of the first bark of the root
 “ of *Star-thistle*, gathered about the end of
 “ *September*. This bark is a small skin,
 “ very fine, brown without, and white with-
 “ in. It is dried in the shade, and reduced
 “ to a very fine powder. The evening be-
 “ fore you take this medicine, put in a gal-
 “ lon of water, a handful of *Pellitory*, a dram
 “ of *Sassafras* wood, as much of *Anis*, and
 “ a pennyworth of fine *Cinnamon*; seeth it
 “ over

“ over a clear fire for half a quarter of an
 “ hour; then remove it from the fire, cover
 “ it well with it's lid and with paper, and
 “ set it upon hot ashes. The next day set
 “ the pot again before a clear fire, and make
 “ it seeth again for half a quarter of an
 “ hour; after which put two ounces of pow-
 “ dered sugar-candy in a silver porringer,
 “ and pour upon it the infusion strained
 “ through a linnen cloth with the expreffion
 “ of the *Faeces*; when the sugar is dissolved,
 “ let the patient drink it as hot as he can,
 “ and take nothing else for three hours,
 “ which must be observed also after taking
 “ the first medicine. The use of these me-
 “ dicines requires no particular regimen.”

CAMERARIUS affirms, that at *Francfort* they make use of the root of *Star-thistle*, instead of that of *Eryngo*: it is employed in aperitive ptisans and broths: one dram of the seed of *Star-thistle* infused in a glass of white-wine, takes away the viscid matter that obstructs the urinary passages.

II. *CARDUUS stellatus*, foliis integris, serratis Bot. Monsp. App.

THE three last species of *Carduus*, according to M. *Vaillant*, constitute a distinct Family, under the name of *Calcitrapa*.

CARLINA sylvestris, vulgaris Clus. Hist.

clvi. *Cnicus sylvestris*, spinosior C. B. Pin.

378. *Carlina sylvestris* quibusdam, aliis

Attractylis J. B. 3. 81. *The common wild Carline-thistle. On heathy grounds.*

* MATTHIOLUS's figure of this plant, under the name of *Carduus vulgaris*, is excellent; that of the *Cirsium luteum Sequanorum* of Lobel †, is naught: it is likely it has been put in the place of the *Carduus vulgarissimus viarum Onopyxos Guilandini*. I believe there is a transposition also in § Dodonaeus; for the description of the *Carduus sylvestris alter*, does not agree well with it's figure, which represents rather our *Carline-thistle*, called by the same author in another place, *Carlina sylvestris*: the figure of this seems to be a copy of that of *Tragus*. C. Bauhin has not well distinguished the plant of which we speak; for in the first place he has confounded it with the *Carthamum sylvestre* Caesalp. ** which is the common yellow *Attractilis*; in the second place, he has taken it for *Cnicus sylvestris prior*, *Attractilis Dalechampii* Lugd. which is not different from the common *Attractilis*, though it is repeated in the *Hist. Lugd.* under the name of *Acorna Theophrasti*: so that this *Carline-thistle* is there but once, under the name of *Acorna sylvestris minor Clusii*: in the third place, he has questioned, without reason, whether it was the *Acorna Theophrasti*, A-

* Matth. 669. † Icon. 14 & 20. § Pempt. 739.

** 532.

cornu Plinio Col. * *Columna's* figure is very good, and we must not separate it from the *Acorna Caesalp.* as the *Bauhins* have done; for *Caspar* has confounded it with the *Carlina sylvestris, minor, Hispanica Clus.* and *John* has confounded it with the *Carlina sylvestris, vulgaris* of the same author. The *Spanish* Carline-thistle is scarce, and known but by few people.

CARPINUS Dod. Pempt. 841. *Ostrya ulmo similis, fructu in umbilicis foliaceis C. B. Pin.* 427. *Fagus sepium vulgo, Ostrys Theophrasti J. B. 1. 146. The Horn-beam, Hard-beam, Horse-beech, or Horn-beech. Common in woods and hedges.*

1. CARVI *Caesalp.* 291. *Cuminum pratense, Carvi officinarum C. B. Pin.* 158. *Caros J. B. 3. part. 2. 69. Carum Dod. Pempt. 299. Carraways. On Christ's college piece, and in the meadows by the road side between Cambridge and Queye.*

CAESALPINUS, *Fuchsius*, and *Dodonaeus* took the stalk of this plant to be square. *J. Bauhin* observed it to be only channelled, and no umbelliferous plant has been yet discovered with square stalks. The seed only of this plant is in use; though some use the root in carminative ptisans and glysters: the seed is stomaehick, diuretick, and very pro-

* Col. part. 1. 26.

per to dissolve the glutinous matters which cause the colick. Carraway feeds are put in bread to avoid this disease. Take an hot loaf sprinkled with bruised Carraway seeds, dipt in good brandy, and applied to the lower belly for that disease. Candyed Carraway seeds dispel the wind. The chymical oil is very acrid and penetrating; five or six drops of it are prescribed in oil of sweet Almonds, some drops of it in spirit of wine, imbibed by cotton, and put in the ears, may be used in the case of deafness, instead of Syringing.

2. *CARVI* foliis tenuissimis, *Asphodeli* radice Inst. 306. *Oenanthe Millefolii palustris* folio 10 Hist. Ox. 3. 289. *Vaill.* Carvi, &c. *Daucus pratensis Millefolii palustris* folio C. B. Pin. 150. *Inst.*

It flowers in *August* and *September*. The flowers are white, having petals almost equal, appearing bifid by means of the point being inflexed. The seeds are ripe in *September* and *October*. They are narrowest in that part where they touch one another. *Vaill.*

THIS plant grows plentifully in the west of *Scotland*, near the sea-port town called *Greenock*. It has roots of two sorts, one of which consists of bulbs, like those of the *Asphodelus* or *Oenanthe*; the others are fibrous and creep, somewhat like those of the common Dogs-grass. *This note I received, with a specimen of the plants from my ingenious friend Mr. William Houstoun.*

CARYOPHYLLATA vulgaris C. B. Pin. 321.

Caryophyllata vulgaris, flore luteo, parvo J. B. 2. 398. Vulgaris Caryophyllata Lob. Icon. 693. *Avens, Herb-Bennet. In hedges. It flowers in May and June.*

J. BAUHIN's history, has the figure of the *Trifolium hepaticum*, instead of that of *Caryophyllata*. It's flowers are represented monopetalous in *Tabernaemontanus's* figure; but they are certainly pentapetalous.

THE *Avens* is bitter, stiptick, and gives a deep red colour to the blue paper: it's root smells like cloves. It's salt resembles the *Sal Ammoniac*; but is very much loaded with acid, and involved by a great deal of essential oil and earth. An infusion of *Avens* roots in wine, is stomachick according to *Tragus*, and removes the obstructions of the liver: this wine is also very vulnerary and deterfive. The extract has the same virtues. It is prescribed in rheumatisms.

1. CARYOPHYLLUS fylvestris, vulgaris, latifolius C. B. Pin. 209. *Betonica coronaria*, five *Caryophyllus fylvestris, vulgatissimus* J. B. 2. 334. *Caryophyllus montanus* 1. *Tabern. Icon. 287.*

TABERNAEMONTANUS's figure of this plant is better than that of *Lobel* and *Dodonaeus*.

2. CARYOPHYLLUS simplex, supinus, latifolius C. B. Pin. 208. *Caryophyllus minor, repens, nostras* Raii Hist. 2. 988. *Caryophyllus*

phyllus minimus, pulchellus, supinus, maculis, aureis, argenteisve aspersus Lob. Ic. 444. *Betonica coronaria*, five *Caryophyllus minor*, folio viridi nigricante, repens, flore argenteis punctis notato J. B. 3. p. 329. *Maiden Pinks*.

By the road sides on the sandy hill you ascend going from *Lenton* to *Nottingham*, plentifully: on sandy hills in *Bedfordshire*: on *Mantham-hill* near *Slough*, about a mile and a half from *Windsor*. Found also by Mr. *Dent* near *Hildersham* in *Cambridgeshire*, on a little hill where *Furze* grows, next to *Juniper-hill*; and by Mr. *Fran. Willughby* near *Bridgenorth* in *Shropshire*; by Mr. *Lawson* on a sandy hill, a little below *Common-Holm-Bridge*, where the water is crossed, near *Great-Strickland*, *Westmorland*. By Mr. *Doody* in *Hampton-Court-Park* abundantly, and in the fields thereabouts. *Raii. Syn. Ed.* 3. 335.

I HAVE seen it in great plenty about *Nottingham*, and on the *Furze-hill* near *Hildersham*. I found it also this last summer (1730) in *White-wood* near *Gamlingay*.

3. *CARYOPHYLLUS sylvestris*, prolifer C. B. Pin. 209. *Betonica coronaria*, squamosa, sylvestris J. B. 3. 335. *Armeria prolifera* Lob. Icon. 449. *Childing Sweet-Williams*.

IN the meadows betwixt *Hampton-Court* and *Tuddington*. *Mer. Pin.* Found by the Rev.

Rev. Dr. Manningham in *Selfey* island, *Suffex*.
R. Syn. Ed. 3. 337.

4. CARYOPHYLLUS barbatus, sylvestris
C. B. Pin. 209. Viola barbata, angustifolia
Dalechampii J. B. 3. 335. Armeria sylvestris altera, calyculo foliolis fastigiatis cincto
Lob. Icon. 448. *Deptford-Pink*. In meadows and pastures in a sandy soil.

To know this plant well, we must retain *Lobel's* figure, and *J. Baubin's* description; for this last author's figure is but a sorry copy of that which is in the *Hist. Lugd.* where this plant is ill represented.

1. CASSIDA palustris, vulgatio, flore caeruleo *Inst.* 182. Lyfimachia caerulea, galericulata, vel Gratiola caerulea C. B. Pin. 246. Tertianaria aliis Lyfimachia galericulata J. B. 3. 345. Tertianaria Tabern. Icon. 375. *Hooded Willow-herb*. By water-sides.

TABERNAEMONTANUS's figure of this plant is better than that of *Lobel*. The plant called by *Caesalpinus* *Gratia Dei*, ought to be referred to the *Gratiola Centauroides*, and not to this, as may be seen in the *Pinax*. It is likely that *Caesalpinus* mentioned it under the name of *Gratia Dei altera*; nevertheless *C. Baubin* has ranged it under the *Gratiola Centauroides*. *Caesalpinus* explains himself after this manner; *Gratia Dei caule est quadrato, dodrantali, foliis per intervalla geminis, angustis & oblongis; inter quae flores sunt concavi & oblongi, dissectis labris, ex caeruleo*
pur-

purpurascens, vâscula seminis rotunda ut Anagallidis, altera est paulo altior & ac ramosior foliis longioribus quasi Lysimachiae purpureae, floribus ex purpurâ albicantibus.

This *Cassida* is hardly of any use in physick: however *Camerarius* says, that the decoction of it is good for the quinsy. And *J. Bauhin* relates, that *Turner* affirmed, that it was called *Tertianaria*, because it cured intermitting fevers: it is bitter, stinks like Garlick, and gives such a faint tincture of red to the blue paper, as the common *Scordium*, and some other febrifugous and aperitive plants.

2. *CASSIDA palustris, minima, flore purpurascens* Inst. 182. *Gratiola latifolia, nostras.* Park. Theat. 220. *Gratiola latifolia* Ger. 581. *Lysimachia galericulata, minor* Raii Hist. 572. *Lysimachia galeata, minor, flore carneo, seu Gratiola latifolia* Gerardi H. R. Par. *The lesser hooded Lose-strife.*

THIS is not common about London. I have found it on Hamsted-Heath, and in a little pit of standing water, over-against Stretham-Wells.

Mr. RAY has described this plant well. The figures which Gerard and Parkinson have given of it, are not very good.

CASTANEA sylvestris, quae peculiariter Castanea C. B. Pin. 419. Castanea Dod. Pempt. 814. *The Chesnut-tree.*

IN some woods near *Sittingburn* in *Kent*, and *Woburn* in *Bedfordshire*. *R. Syn. Ed.* 3. 440. In *Charlton-Wood* plentifully.

CHESNUTS fatten and nourish; but they bind also, and sometimes generate wind. The meal mixed with honey, or the Chesnuts themselves roasted, and worked up with honey and flowers of sulphur, make a good electuary for those who spit blood, or cough much. The decoction of Chesnuts, or their shell roasted, assuages the flux of the belly; as does also the little skin under the shell. An emulsion made of Chesnuts, Poppy-feed and barley-water, assuages the heat of urine. Chesnuts are sweet, a little stiptick, and redden the blue paper, which shews that alum and sulphur predominate in this fruit.

CATARIA, major vulgaris *Inst.* 202. *Mentha Cataria vulgaris* & major *C. B. Pin.* 228. *Mentha Cataria J. B.* 3. part. 2. 223. *Cataria herba Dod. Pempt.* 90. *Nep or Cat-Mint.* On banks. It flowers in June and July.

TRAGUS's figure, under the name of *Nepeta*, is very bad.

THE Cat-mint is aromatick, acrid, bitter, and gives no tincture of red to the blue paper; which shews it to contain an aromatick, oily, volatile salt, in which the urinous part predominates, in the same manner as in the artificial, oily, volatile salt: this plant taken as tea, or infused in wine, is very aperitive, emmenagogick, and cures the vapours.

pours. *Tabernaemontanus* says, that being boiled in wine and honey, it cures the jaundice and violent cough. It is usually employed in washes for the feet, for the green-sickness.

1. CAUCALIS arvensis, echinata, magno flore C. B. Pin. 152. *Lappula canaria*, flore pulchro, magno, albo J. B. 3. part. alt. 79. *Caucalis* Dod. Pempt. 700. *Echinophora πυκνόκαρπ* & an *Dioscoridis Gingidium* Col. part. 1. 91.

TRAGUS has given a sorry figure of this plant; and even by his description, it is not easy to know whether he intended to speak of this species of *Caucalis* or any other. We are in the same case, with regard to *Anguillara's* description of his *Lappula canaria* di * *Plinio*. *Anguillara* seems rather to have described the *Caucalis Dauci sylvestris folio, echinato magno fructu* Bot. Monsp. for this author affirms, that the leaf of this plant is like that of the *Daucus*. *Lonicer's* figure of his *Tribulus sylvestris*, *Lappula campestris*, is good for nothing. There are two figures in the *Hist. Lugd.* one under the name of *Caucalis Dodonaei*; and the other under the name of *Myrrhis Lappa Dalechampii*, the figure of which is very bad.

2. CAUCALIS arvensis, echinata, parvo flore & fructu C. B. Pin. 152. *Lappula canaria*,

* Ang. 217.

flore minore five tenuifolia J. B. 3. part. 2. 80. Echinophora tertia λεπτόφυλλον purpurea Col. part. 1. 97. *Fine-leaved Bastard Parsley, with a small, purplish flower. In the corn about Kingston in Cambridgeshire, and along the bank of the Devil's Ditch, between Reech and the Newmarket road, plentifully. It flowers in June.*

COLUMNA'S figure is better than that of J. Baubin.

3. CAUCALIS arvensis, echinata, latifolia C. B. Pin. 158. Lappula canaria, latifolia, five Caulalis J. B. 3. part. 2. 80. Echinophora quarta major πλατύφυλλον purpurea Col. part. 1. 97. *Purple-flowered great Bastard Parsley.*

IN many places in Cambridgeshire.

THIS plant is well engraved in *Columna*. We must refer to it the *Caucalis flore rubeo, folio latiore* Lob. * though the figure of it is not very good. Thus our plant is not different from the *Caucalis lato Apii folio* C. B. Pin. We must not confound with this *Caucalis* the *Gingidium* of *Caesalpinus*; for the plant, to which he has given this name, has more affinity with the other species of *Caucalis*, than with this. M. Magnol has observed, that the *Lappa boaria* of the *Hist. Lugd.* is different from our plant; and that we must

* Lob. Icon. 728.

not distinguish it from the *Caucalis Monspe-
liaca*, *echinato magno fructu* Pin.

CELTIS fructu nigricante Inst. 612.

I. CENTAURIUM minus C. B. Pin. 278.
Dod. Pempt. 336. Centaurium minus flore
purpureo J. B. 3. 353. *Small purple Cen-
taury. In dry pastures. It flowers in
July.*

MATTHIOLUS has given an excellent figure
of it. *Fuchsius*, out of his great fondness to
discover the plants of *Dioscorides*, has made
no difficulty to say, that this has small ob-
long leaves, like those of *Rue*. So that we
have some reason to question whether our
plant is the *Small Centaury* of the antients.

THE leaves and the flowers are intolerably
bitter, and for all that they give a consider-
able tincture of red to the blue paper; which
makes us conjecture that the salt of this
plant is not very different from that which is
natural in the earth, which is very bitter:
we have the same reason to believe that the
salt of the small Centaury, is mixed with a
considerable quantity of sulphur and earth;
but in such a manner that the *Sal Ammoniac*
is more disengaged in it, than the other prin-
ciples. The salt which is found in the
Aloës, in the Jesuit's Bark, and *Ipecacuana*,
is much of the same nature: for these sub-
stances, which are very bitter, give a red
colour to the solution of Tournesol; that is,
the Aloës, a beautiful red, and the two
others

others a gridelin: thus it is no wonder that the small Centaury should be febrifugous, laxative, and aperitive, that it should kill worms, and re-establish the functions of the *Primæ Viæ*. They infuse a handful of the tops of this plant in a glass of white-wine; but as the infusion is very bitter, it is better to make the extract of Centaury, and give a dram of it, or mix it with as much powder of Jesuit's Bark, chiefly for intermitting fevers, when there are obstructions in the bowels; for in these cases the patients are cured without any return: The infusion, or the decoction of the small Centaury is vulnerary, deterfive, and very resolvent if applied externally.

2. CENTAURIUM purpureum, minimum *Mor. H. R. Blef. Hist.* 566. Centaurium minimum, purpureum, ramosum *Bot. Monsp.*

THE flower of this is not above four lines in diameter: it is of a more lively colour than that of the preceding. It flowers in *July* and *August*.

3. CENTAURIUM minus, palustre ramosissimum, flore purpureo aut albo. *Vaill.* 32.

4. CENTAURIUM palustre, luteum, minimum *Raii Hist.* 1092. Centaurium luteum minimum *H. R. Blef.* 248. *Vaill.* 32.

Mr. RAY found this towards the end of Cornwall, in rotten, marshy ground.

THIS plant is usually branched; though we find it sometimes with a simple stalk.

It's flower is of a pale yellow colour, monopetalous, cut at top into four equal segments, disposed in form of a cross. Four chives arise from the inside of the tube, and are terminated with summits, appearing at the opening of the petal. The ovary, which is inclosed within the tube, is oval, and surmounted by a style. The empalement is cut to the base, into four segments, which are rounded at the back. The fruit is unicapsular, and divides, like a Mitre, from the point to the base, pouring out very small, blackish seeds. The plant is bitter, and flowers in *June, July, and August.* *Vaill.*

5. CENTAURIUM luteum, perfoliatum C. B. Pin. 278. Perfoliatum Centaurium luteum J. B. 3. 355. Centaurium luteum Cam. Epit. 427. *Yellow Centaury. In hilly and dry meadows. It is common about Cambridge.*

CAMERARIUS's figure is better than those of *Clusius, Lobel, and Tabernaemontanus.* There are two sorry figures in the *Hist. Lugd.* * one under the name of *Centaurium luteum, prius*; and the other under that of *Centaurium luteum, alterum.*

It flowers in *June and July*: it's flower is usually cut into eight equal segments; as is also the empalement. It has eight yellow

† Lugd. 1290 & 1291.

chives, and a style terminated by a button.
Vaill.

6. *CENTAURIUM palustre minimum* flore inaperto. *Vaill.* 32.

1. *CEPA montana, bicornis*, flore obsoletiore *Inst.* 383. *Allium montanum, bicornis*, flore obsoletiore *C. B. Pin.* 75. *Allii montani* iv. species ii. *Clus. Hist.* 194.

2. *CEPA montana bicornis* flore luteo. *Allium juncifolium, bicornis luteum* *C. B. Pin.* 75. *Allium* flore luteo sive pallido *J. B.* 2. lib. 19. p. 561. *Vaill.* 32.

THE leaves of this plant are full, like those of a Rush,

3. *CEPA montana capite rotundo*, an *Allium sphaerocephalon bifolium Italicum* *J. B.* 2. lib. 19. p. 563. *Allium montanum capite rotundo* *C. B. Pin.* 75. *Vaill.* 32.

Mr. *Ray* ranges this among the species, which have broad leaves; so that it cannot be that of our country, which has fistulous leaves, and consequently is the *Allium sphaerocephalon, purpurascens Raii. Hist.* 1118. which M. *Tournefort* calls *Cepa tenuifolia sphaerocephalos, purpurascens Inst.* 383. and which he proposes for the *Allium montanum, capite rotundo C. B. Pin.* 75. *Vaill.*

THE leaves are fistulous. It flowers in July and August. *Ibid.*

4. *CEPA sylvestris, tenuifolia, prolifera. Cepa juncifolia, minor, purpurascens Inst.*

383. *Allium sylvestre, tenuifolium* Lob. Icon. 172.

J. BAUHIN had reason to believe this plant not to be different from the *Allium caninum* I. Frag. the *Allium campestre* Cord. the *Allium sylv. primum* Fuchs. and the *Allium sylvestre minus* Dod. thus I believe the *Allium sylvestre, campestre, purpurascens* Pin. ought not to be separated from the *Allium campestre, juncifolium, capitatum, purpurascens, majus* Pin. of which the *Allium sylvestre, capitatum, purpurascens, minus*, seems to be nothing but a variety.

1. *CERASUS sylvestris, amara, Mahaleb putata* J. B. 1. 227. *Ceraso affinis* C. B. Pin. 451.

THE author of the *Hist. Lugd.* has given a sorry figure of this plant, under the name of *Vaccinium Plinii, Lacatha Theophrasti*. That of J. Bauhin is not bad. The fruits of this tree are ill represented in the figures of *Cordus* and *Camerarius*.

2. *CERASUS fativa, fructu rotundo, rubro & acido* Inst. 625.

3. *CERASUS fativa, fructu majori* Inst.

4. *CERASUS major, fructu magno, cordato* Raii Hist.

5. *CERASUS fructu aquoso.* Vaill. 32.

6. *CERASUS sylvestris fructu nigro* J. B. 1. 220. *The black Cherry-tree.*

IN the hedges in *Suffolk*. *R. Syn. Ed. 3.*
463. On *Hamstead-Heath* and in *Bishop's-*
wood.

1. CERATOPHYLLON laeve, aquis immer-
fum. Hydroceratophyllum, folio laevi,
octo cornibus armato Act. Ac. R. Sc. Par.
1719. pag. 16. *Vaill.* 32.

OBSERVED by D. *Manningham* and Dr.
Dillenius in the ditches, by the way-side,
from *Chichester* to *Selfey*. *Syn. Stirp. Brit.*
Ed. 3. 135.

2. CERATOPHYLLON asperum, aquis im-
mersum. Hydroceratophyllum, folio aspero,
quatuor cornibus armato Act. Ac. Sc. Par.
Ann. 1719. pag. 16. *Millefolium aquaticum*
cornutum 2. *Raii Hist.* 191. *Equisetum sub*
aqua repens foliis bifurcis Flor. Pruss. 67.
Common in standing waters.

1. CHAEROPHYLLUM sylvestre, seminibus
brevibus, hirsutis Inst. 314. *Myrrhis syl-*
vestris, seminibus asperis C. B. Pin. 160.
Cicutariae quodammodo similis, vel Chaero-
phylo accedens J. B. 3. part. 1. 181. Myr-
rhis sylvestris, nova Aequicolorum Col. part.
1. 112. Small Hemlock-Chervil with rough
seeds. Common on banks.

COLUMNA has an excellent figure of this
plant, and describes it very well: let *J.*
Bauhin say what he will of his figure, it is a
sorry one; he had no reason to suspect it to
be the same with the *Caucalis semine aspero,*
flosculis rubentibus C. B. Pin. Prodr. 80.

2. CHAEROPHYLLUM sylvestre, perenne, Cicutae folio Inst. 314. Myrrhis sylvestris, seminibus laevibus C. B. Pin. 160. Cicutaria vulgaris J. B. 3. part. 2. 181. Myrrhis Fuchf. Hist. 225. *Wild-Cicely or Cow-weed. Common on ditch banks.*

TRAGUS being persuaded it was the *Myrrhis* of *Dioscorides*, advises the use of it for the suppression of the terms; but *J. Bauhin* relates a melancholy story of two Families, that had eaten the roots of this plant instead of those of *Parsneps*.

3. CHAEROPHYLLUM sylvestre, alterum, geniculis tumentibus H. R. Par.

CHAMAECERASUS dumetorum fructu gemino rubro C. B. Pin. 451.

CHAMAECISSUS *officinarum*. Calamintha humilior, folio rotundiore Inst. 194. Hedera terrestris, vulgaris C. B. Pin. 306. Chamaecissus sive Hedera terrestris veteribus J. B. 3. App. 855. Hedera terrestris Dod. Pempt. 394. *Ground-Ivy, Gill-go-by ground, Alehoof or Tunhoof. Common in hedges. It flowers in April.*

CORDUS describes this plant under the name of *Chamaeclema*; but the figure of the *Genista tinctoria* is erroneously joined to it.

THE leaves of Ground-Ivy are bitter, a little aromack, and give hardly any tincture of red to the blue paper: so that it is probable it's salts may in some measure resemble vitriolated tartar. This salt is mixed with

with a very little *Sal Ammoniac*; but with a great deal of sulphur and earth: it yields no concreted volatile salt by the chymical analysis, but a little urinous spirit: all the rest that is obtained from it is acid, alkaline, oil and earth; and these two last parts are found in it in great quantity.

THE *Ground-Ivy* is very aperitive, detensive and vulnerary. *Camerarius* and *Caesalpinus* commend it very much for provoking urine, and expelling the stone: *Simon Paulli* gave it's powder to drink, mixed with an equal quantity of sugar, and steeped in the distilled water of the same plant: it consolidates ulcers also: it is given in broths and decoctions to those that are tiffical or make purulent urine. *Lobel* made use of it to prevent the gout and open the bowels. An extract, a conserve, and a fyrup are prepared of the leaves and flowers of this plant.

I. CHAMAEDRYS minor, repens C. B. Pin. 248. Chamaedrys repens, minor Dod. Pempt. 43. *Germander*.

PLENTIFULLY on the ruins of *Winchelsea-Castle*, Mr. *J. Sherard*. *Syn. Ed. 3. p. 231.*

It is said to grow in an Island by Queyewater, where I have searched for it in vain.

THE leaves of this plant are bitter and aromattick: they give no tincture of red to the blue paper, which shews that they contain principles different from those of the *small Centaury*. The salt of the *Germander* is

is not different from that which is natural in the earth, which is a mixture of marine salt, nitre, and *Sal Ammoniac*; it is acrid, very bitter, and very aperitive: it is probable, that what is found in this plant, has lost it's acrimony by the mixture of a great deal of essential oil, which renders the *Germander* aromatick; it is febrifugous, stomachick, aperitive, and diaphoretick. They infuse cold over-night a handful of it's leaves in a glass of white-wine, with half a dram of vegetable salt, and give the infusion to drink fasting for the green sickness. They prepare an extract of the leaves and flowers, and give a dram of it, with a drop or two of the oil of Cinnamon, and make an infusion of the leaves like tea, principally for the gout and sciatica. They enter the powder of the prince of *Mirandola*, which passes for a great specifick in such diseases; the composition is as follows: you must dry, and reduce to a very fine powder, an equal quantity of the leaves of *Germander*, *Ground-pine*, *small Centaury*, the roots of the *great Centaury*, *round Birthwort*, and *Gentian*; mix all these powders, and keep them in a dry place, and in a box close shut, after having sifted them through a searce of silk; infuse a dram of it all night in half a glass of good old wine, or lean broth: it is better to drink it in substance, than to throw away the *Faeces*, and drink only the simple infusion. They pretend

tend that this powder must be used for a whole year, every day, either evening or morning, every other day, or at least once a week. The patient must take nothing else till three or four hours after this medicine: he must be purged, by the advice of a physician, in the beginning of the seasons, or oftner, if it is necessary; he must avoid ragoos, milk-diet, and violent exercises. This powder also is excellent for intermitting fevers, for the dropfy, and for all diseases, where there are great obstructions in the bowels. The *Germander* is used in treacle, *Hiera Diacolocyntidos*, syrup of *Mugwort*, hydragogick syrup of *M. Charas*, aperitive and cachectick syrup of the same author, compound oil of Scorpion, *Unguentum Martiatum*, and in the Mundificative of Smallage, &c.

2. CHAMAEDRYS laciniatis foliis Lob. Icon. 395. Botrys Chamaedryoides C. B. Pin. 138. Botrys verticillata J. B. 3. 298.

THERE are two figures of this plant in the *Hist. Lugd.* that of the *Chamaedrys foemina Dodonaei*, and that of the *Chamaedrys altera Matthioli*; but the author of this history allows it to be the same plant which he calls also *Chamaedrys minima*.

3. CHAMAEDRYS fruticosa, sylvestris, Melissae folio Inst. 205. Scordium alterum, five Salvia agrestis C. B. Pin. 247. Scorditis, five Scordium folio Salviae J. B. 3. 293. Salvia agrestis, five Sphacelus Dod. Pempt.

291. *Wood-Sage.* Common in woods about London, but not in Cambridgeshire.

DODONAEUS has described the flower of this plant very ill; he says that it is cut in shape of a fickle, and like that of the *Lamium*: it is certain that it entirely resembles the *Germander*.

It's leaves are very bitter and aromack, they have a little taste of Garlick, and give hardly any tincture of red to the blue paper; which gives us reason to believe they contain a salt like that of the *Germander*, but loaded with more essential oil, and in which the *Sal Ammoniac* discovers itself but little. This plant is very aperitive, diaphoretick, vulnerary and resolvent: *Dodonaeus* prescribes the decoction of it in the venereal disease. *Tragus* commends it's juice and infusion in wine, as a medicine very aperitive and sudorifick, good to strengthen the stomach, and kill worms, to provoke urine, and to carry off the jaundice and the Tertian ague; they use it very successfully at *Paris* for the Dropsy, by giving to drink every four hours a glass of the infusion of this plant in white-wine.

4. CHAMAEDRYIS palustris, canescens, seu Scordium officinarum Inst. 205. Scordium C. B. Pin. 247. J. B. 3. 292. Dod. Pempt. 126. *Water Germander.* In the Isle of Ely.

WE owe the knowledge of this plant to two persons of very distinguished learning,

ing, * *William Pellissier*, bishop of *Montpelier*, and *Rondeletius*, a famous professor in the same city. As they were walking in the country about *Montpelier*, they discovered, by the smell of Garlick, which is very sensible in the *Scordium*, that it was the plant which the antients had called by that name. The comparison which *Dodonaeus* has made of it's flowers, to those of the *Lanium*, is not very just; for it is certain, that they are entirely like those of the Germander. These flowers are better represented in the figure which *Tabernaemontanus* § has called *Scordium*, than in those which he has called *Scordium majus* & *minus*: and besides, these figures have round stalks, whereas the first has them square.

THE *Scordium* is bitter, aromatick, and gives a faint red colour to the blue paper: it contains an oily, volatile salt, the *Sal Ammoniac* of which is not entirely disengaged, but wrapped up in a great deal of sulphur. The *Scordium* is a good dissolver; it is aperitive, diuretick, sudorifick: the infusion of it should be drank in malignant fevers, the small-pox, measles, and diseases of the skin. It is used after the manner of tea, or a pugil of it may be boiled in lean broth, to restore the appetite, kill worms, and purify the

* Adv. 210.

§ Tab. Ic. 76 & 762.

blood by insensible transpiration. Half an ounce of the extract of this plant in a bolus, or an ounce of the conserve of it's leaves and flowers, usually prove sudorifick. This conserve is of use for purulent spitting. This plant is also deterfivè and vulnerary: it is used in lotions, with Wormwood and the lesser Centaury. Fomentations are made of these herbs, and they are applied as a cataplasm on parts which are threatned with a Gangrene. To cure a Gangrene, the sphacelated flesh must first be eaten off with the water of corrosive, sublimate, and arsenick, or the butter of Antimony; for without this assistance the vulnerary plants would be of no use. The *Scordium* is used in the *Theriaca*, the Mithridate, the Orvietan of *Hoffman's* composition, *Matthioli's* antidote, and most alexipharmick compositions. It has given name to the *Diascordium* of *Fracastorius*, and to that of *Sylvius*.

CHAMAELINUM vulgare. Polygoni vel Lini folio per terram sparsa, flore scorpioides J. B. 3. 379. Polygonum minimum, five Millegrana minima C. B. Pin. 282. Millegrana minima Lob. Icon. 422. *The least Rapturewort or All-seed.*

ON *Putney-Common* plentifully, *Mer. Pin.* On the Common before you come to *Chiselhurst*, *Syn. Stirp. Brit. Ed. 3. 345.* About *Lynn* plentifully.

I DO not see why *C. Bauhin* should assert this plant to be the *Herniaria Thal.* for *Thal.* speaking of the common *Herniaria*, says only, *Hujus invenitur species, viticulos plurimos dispergens, foliis longioribus non ita confertim dispositis.*

THIS Plant is *sui generis*; it's root is pretty long, white, and a little hairy; it sends forth several stalks a foot long, lying on the ground, garnished with some leaves growing alternately, seven or eight lines long, pointed at the two ends, about a line and a half, or two lines broad at the the middle, sea-green, and smooth: the tops of the stalks are divided into several sprigs, crooked like a scorpion's tail, charged with little flowers, each of which are composed of five white petals, oval, and three quarters of a line long: the empalement is of one entire piece a line long, divided into five greenish points; but white towards the end: they bend inwards, when the flowers are gone; and then the empalement serves to inclose a brown, hard seed, almost round; but, if observed through a microscope, appearing almost triangular. *M. Magnol* suspects it to be the *Polygonum minus lentifolium C. B. Prodr.* 131, but this author has described the leaves round and lenticular.

I. CHAMAEMELUM nobile five Leucanthemum odoratius C. B. Pin. 135. Parthenium nobile I. Trag. desc. 147. Parthenium, nobilis

bilis Chamomilla Trag. Icon. 149. Anthemis feu Leucanthemis odorata Lob. Icon. 1. 770. Chamaemelum odoratissimum, repens, flore simplici J. B. 3. lib. 26. p. 118. Raii Hist. 1. 253. Vaill. 34. *Sweet-scented creeping Camomile.*

IN *Cornwal* so plentifully, that you may scent it all along as you ride. *R. Syn. Ed.* 3. 184. *It is common about London, on waste places in a moist soil.*

2. CHAMAEMELUM vulgare, Leucanthemum Dioscoridis C. B. Pin. 135. Chamaemelum vulgare, amarum J. B. 3. 116. Chamaemelum vulgare Dod. Pempt. 257. *Common Camomile. In waste places.*

THIS plant is bitter, aromatick, and gives a deep red colour to the blue paper. It seems to contain some *Sal Ammoniac*, loaded with a great deal of acid, and involved by a great deal of sulphur and earth. It is aperitive, diuretick, lenifying and febrifugous. The powder of its flowers were used, in *Dioscorides's* time, to cure intermitting fevers. *Riverius* prescribed it on the same occasions, and it is still the common febrifuge of the *Scotch* and *Irish*. The infusion of its tops, with those of *Melilot*, gives great ease to such as are tormented with a nephritick colick, and retention of urine; it assuages the acute pains of women newly brought to bed. *Simon Paulli* recommends a strong infusion of Camomile flowers in wine taken by spoonfuls,

fuls, while a hog's bladder, filled with a decoction of the herb, is applied hot, and renewed as occasion requires, in pleuritick cases. It is also used in lenifying and resolving clysters; fomentations, cataplasms and baths, for the gout, sciatica, and the piles. The oil of Camomile, made by infusion, is very good in the same cases. A liniment of an equal quantity of Camomile and oil of St. *John's-wort*, with camphorated spirit of wine, in which a twice folded cloth has been dipped, and applied very hot to the affected part, is good in rheumatisms.

M. VAILLANT *is of opinion, that the Chamaemelum majus foliis tenuissimis, caule rubente* H. R. Monsp. *and the Chamaemelum elatius, foliis obscure virentibus, semine nigro* Pluk. Alm. Bot. *are not specifically different from this plant. Dr. Dillenius * refers this last to the Chamaemelum inodorum* C. B. *and questions whether Plukenet might not mean by it the Chamaemelum inodorum, annuum, humilium, foliis obscure virentibus* H. Ox. *if so, that of Magnol, that of Plukenet, and that of Bobart, are all to be accounted varieties of the Common Camomile. M. Vaillant observes very justly, that the seeds of this plant are not separated by chaff, as in the true Camomiles; so that it ought rather to be*

* Synopf. Stirp. Brit. Ed. 3. 186.

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referred to the family of Matricaria. He has called it, in the Memoirs of the Royal Academy of Sciences for the year 1720. Matricaria leucanthemos, annua Chamaemeli folio, ovariis nigricantibus.

3. CHAMAEMELUM foetidum C. B. Pin. 135. Chamaemelum foetidum, five Cotula foetida J. B. 3. 120. Cotula alba Dod. Pempt. 258. *Stinking Mayweed. Common on banks.*

THIS plant is acrid and bitter: it smells like Bitumen, and gives a very deep tincture of red to the blue paper; which seems to shew that it contains a great deal more foetid oil than the preceding. The fomentations of Mayweed are very good for the vapours, according to *Tragus*. They use it at *Paris* to assuage the pain of the piles.

4. CHAMAEMELUM inodorum C. B. Pin. 135.

FOUND in the gravel-pits in *Peckham* fields, and in the barren, stubble fields, betwixt *Eltham* and *Shooters-hill*, before you come to the *Katharine-wheel*, by Mr. *James Sherard*, *Synops. Stirp. Brit.* 187.

5. CHAMAEMELUM Lusitanicum latifolium five Coronopi folio Breyn. Cent. 1. 149.

1. CHAMAENERION latifolium, vulgare Inft. 302. *Lyfimachia Chamaenerion dicta, latifolia* C. B. Pin. 245. *Lyfimachia speciosa, quibusdam Onagra dicta filiquosa* J. B. 2. 906. *Onagra* Lugd. 865. *Rose-bay Willow-herb.*

IN the meadows near *Sheffield* in *Yorkshire*, and in several other places of the *North*, plentifully. *R. Syn. Ed. 3. 310.*

2. CHAMAENERION villosum, magno flore, purpureo *Inst. 303.* *Lyfimachia filiquosa, hirsuta, magno flore purpureo C. B. Pin. 245.* *Lyfimachia filiquosa, hirsuta, majore flore purpureo J. B. 2. 905.* *Lyfimachia filiquosa, 1 Tabern. Icon. 855.* Great hairy, coddled Loose-strife or Willow-herb, called also Codlings and Cream. On the banks of ditches and brooks.

It's flowers, altho' composed of four petals, are represented monopetalous in *Fuchsius's* history of Plants. *J. Baubin* has confounded this plant with the *Lyfimachia filiquosa, filius antepatrem Adv. C. Baubin*, with more reason, referred it to the *Lyfimachia filiquosa, glabra, major Pin.* we must judge the same of the *Pseudolyfimachium purpureum 1. * Dod.* As for the *Lyfimachia purpurea 1. Dodonaei Lugd.* the figure in the *Hist. Lugd.* bears no ill resemblance to our *Chamaenerion*; but the description agrees with the *Lyfimachia filiquosa, glabra, major Pin.*

3. CHAMAENERION villosum majus parvo flore *Inst. 303.* *Lyfimachia hirsuta, filiquosa, major, parvo flore C. B. Prodr. 116.* *Lyfimachia filiquosa, hirsuta, flore minore*

* *Dod. Pempt. 85.*

J. B. 2. 906. *Lyfimachia filiquosa* II Tabern. Icon. 855. *The lesser hairy-codded Willow-herb or Loose-strife. In moist places.*

J. BAUHIN is mistaken in ascribing to this species, that which § *Dodonaeus* calls *Pseudolyfimachium purpureum minus*, which figure represents very well the *Lyfimachia Chamaenerion dicta, angustifolia* C. B. Pin. 245. *Dodonaeus* himself did not very well know this plant, for he affirms, that it differs no otherwise, than by it's bigness, from another species of *Chamaenerion*, which C. Bauhin calls *Lyfimachia filiquosa, glabra major*.

4. CHAMAENERION glabrum, majus, Inft. 303. *Lyfimachia filiquosa, glabra, major*, C. B. Pin. 245. *Lyfimachia laevis* J. B. 2. 907. *Pseudolyfimachium purpureum* 1. Dod. Pempt. 85. *The greater smooth-leaved, codded Willow-herb or Loose-strife. In moist places.*

IT is difficult to know whether this plant is that called by *Caesalpinus*, *Onagrae species altera laevis*; for what this author says of it, agrees as well with the following.

5. CHAMAENERION glabrum, minus, Inft. 303. *Lyfimachia filiquosa, glabra, minor*, C. B. Pin. 245. *Lyfimachia minor* Tabern. Icon. 855. *Middle, smooth-leaved, codded Willow-herb or Loose-strife. About ditches and brooks.*

WE must cite *Lyfimachia medii* 1. *species Thal.* and not *Lyfimachii medium* genus *Thal.* as in the Pinax.

6. CHAMAENERION angustifolium, glabrum Inft. 303.

CHAMAEPITYS lutea, vulgaris, five folio trifido C. B. Pin. 249. Chamaepitys vulgaris, odorata flore luteo J. B. 3. 295. Ajuga five Chamaepitys mas Dioscoridis Lob. Icon. 382. *Common Ground-Pine. On the lays about Triplo-w-heath, and about Chatham.*

THIS plant is bitter, aromattick, and gives a faint red colour to the blue paper; by which it seems to contain some aromattick, oily, volatile salt, loaded with a great deal of sulphur and earth, for by the * chymical analysis, the Ground-Pine yields several acid liquors, a little urinous spirit, a great deal of oil, and more earth.

No wonder then if this plant restores the ordinary course of the spirits and liquors, in the nerves and capillary vessels; whence it is very good in nervous affections. It is diuretick, emmenagogick, and dissipates the cause of the gout. Drink it's infusion in wine, or make a ptisan of it with German-der: the juice enters *Nicholaus Salernitanus's* arthritick pills: but *Matthiolus's*

* Extract of the registers of the royal academy of sciences.

pills are better, because they are not so compound.

1. CHANTERELLA *flava, gelatinosa*. Fungus gelatinus, flavus. *Vaill.* 58.

THIS is about an inch in height, and about a line or two thick; it usually grows in clusters. The stalks are a little flattened and furrowed on one side; and their surface is shagreened. The head is usually angular, with the centre sunk into a kind of navel, and the edges, which are turned down, are cut into three or four rounded segments. The upper surface of the head is yellow, but more dirty and livid than the stalks. When the plant decays, it turns into a greenish gelly. *Vaill.*

UNDER the name of Chanterella, I comprehend those Fungi, whose head is solid, that is, neither lamellated, nor porous, nor latticed, nor prickly, nor turning to dust when ripe.

2. CHANTERELLA *flava, pileo subtus nervis ramosis striato*. Fungus angulosus & velut in lacinias sectus C. B. Pin. 371. Fungus luteus sive pallidus Chanterelle dictus, se contorquens, esculentus J. B. 3. 832. Capreolini Tabern. Icon. 1118. In woods.

3. CHANTERELLA *pileo flavescente, calyciformi, caule aureo*. Fungus minimus, flavesens, infundibuli forma C. B. Pin. 373.

4. CHANTERELLA *cinerea, pileo per maturitatem varie laciniato*. Fungus pileolo per matu-

maturitatem instar Agarici intybacei laciniato-
Vaill. 60.

I. CHELIDONIUM majus vulgare C. B. Pin.
144. Chelidonia J. B. 3. 482. Chelido-
nium majus Dod. Pempt. 48. *The greater*
Celandine. Common in hedges.

DIOSCORIDES relates, that it was believed in his time, that the swallows, by the application of this herb, restored sight to their young ones, whose eyes had been put out. *Aristotle* was of the same opinion; but * *Celsus* justly refused this error: for experience shews, that in less than an hour, an animal sees clearly, though the horny coat of the eye has been pierced, so that several drops of the aqueous humour came out. *Celandine* is bitter, acrid, and burning, especially the root, which yields more orange-coloured juice, than the other parts of the plant: it gives but a faint red colour to the blue paper, and smells like rotten eggs, which makes one believe that it's juice is (if I may so say) phagedenick; something like the liquor that results from the mixture of the solution of sublimite and lime-water, or milk which has boiled some time with an acrid salt.

THE *Celandine*, by a § chymical analysis, yields a good deal of salt, both fixt and vo-

* Lib. 6. cap. 6. § Extract of the registers of the
royal academy of sciences.

latile; but it is involved in a great deal of sulphur and earth.

THIS plant, taken inwardly, is very aperitive: the infusion of a pugil of it's leaves, macerated cold a whole night, in a glass of whey, with one dram of cream of tartar, is a good remedy for the jaundice and green-sickness: some add to it an ounce of the syrup of Succory: for the dropsy they infuse, for 24 hours, one ounce of the root of Celandine, and half an ounce of tincture of Steel, in a pint of white-wine: they strain the infusion through a linen cloth, and give the patient three ounces of it twice a day. The following preparation is very good for the vapours and consumption of the lungs. You must put in digestion for eight days, twelve pounds of the whole plant gently bruised, three dozen of cray-fish cut small, and two pounds of honey; lute the alembick, and distil these ingredients in *Balneo Mariae*; this water being drank from two to four ounces, is excellent for the vapours. It abates the inflammation of the eyes, and dries up the ulcers of those parts, as well as the juice of Celandine tempered with milk: it is applied without milk to webs in the eyes, in order to eat them away. *Julian Paulmier*, a famous physician of the faculty of *Paris*, set a great value on the root of this plant, in the plague *. *Succus radidis*

* De febr. Pestil. cap. 15.

Chelidonii majoris ex vino albo, & aceti rosacei momento expressus, nonnullis praesentaneum auxilium attulit, & virus sudore foras pepulit. The herb bruised, cures the wounds of horses; some add to it the leaves of the horned Poppy.

2. CHELIDONIUM majus foliis quernis C. B. Pin. 144. *Chelidonium folio laciniato* J. B. 3. 483. *Chelidonium majus laciniato flore* Clus. Hist. cciii.

I FOUND *this* in great plenty among the ruins of the Duke of Leeds's seat at Wimbleton.

1. CHENOPODIUM Betae folio, Inft. 506. *Blitum polyspermon a feminis copiâ* C. B. Pin. 118. *Blitum sylvestre*, Cam. Epit. 237. *Upright Blite, or All-seed. In waste places.*

IT's flowers are represented better in the figures of *Camerarius* and *Tabernaemontanus*, than in those of the other authors. *J. Bauhin*, who has called it *Blitum erectius sive tertium Tragi*, has copied *Tragus's* figure. Mr. *Ray* believed that this plant was the same with the *Blitum album*, minus of the two *Bauhins*, though he has spoken again of this separately, p. 200. Nevertheless these plants are so different, that the *Blitum album*, minus *J. B.* is a true species of *Blitum*; and this plant is a *Chenopodium*: here follows the description.

IT's root is fibrous and reddish: the stalk branched and spreading from the bottom, a foot,

foot, or a foot and a half high, channelled, smooth, adorned with leaves pretty like those of the *Beet*, but smaller, about two inches and half long, and one inch and some lines broad, terminated in a point, and sustained by a pretty short pedicle: out of their bosoms proceed some clusters of flowers disposed all along the stalk, pretty short, but branched and extended on all sides: each flower consists of five whitish chives, loaded with pale-yellow summits; the empalement is green, divided into five points, which unite when the chives are gone, and inclose a blackish seed, very small, shining, and resembling the figure of a little kidney: this seed is nothing else but the pointal enlarged.

2. *CHENOPODIUM foetidum* Inst. 506.
Atriplex foetida C. B. Pin. 19. J. B. 2. 974.
Vulvaria Tabern. Icon. 428. *Stinking Orache.* *About Dunghills.*

THE tincture of this plant drawn with spirit of wine, is good for the vapours.

THIS plant, by a * chymical analysis, affords little or nothing but a substance loaded with acrid salts: it yields after all a great deal of concrete, volatile, and very lixivial fixed salt, a pretty deal of sulphur and earth.

* Extract of the registers of the royal academy of sciences.

3. CHENOPODIUM angustifolium, laciniatum minus Inst. 506. *Atriplex angustifolia*, laciniata, minor J. B. 2. 972. *Oak-Blite*. On dunghills, but not very common.

J. BAUHIN's figure of this plant does not represent it amiss: he had no reason to confound this with the *Atriplex sylvestris* 2. † *Tabern.* much less with the *Atriplex sylvestris* 2. *Cam. Epit.* 243.

4. CHENOPODIUM folio sinuato, candicante Inst. 506. *Atriplex sylvestris*, folio sinuato, candicante C. B. Pin. 119. *Atriplex sylvestris* J. B. 2. 972. *Atriplex sylvestris* *Tabern. Icon.* 426. *Common wild Orache*. In waste places.

TABERNAEMONTANUS's figure is good. Mr. Ray * has very well described all the parts of this plant, except the flower, which is not pentapetalous, but apetalous, for it's empalement, which is of a grassy colour, becomes the seed-vessel. C. Bauhin affirms, (on too slight grounds perhaps) that it is the plant which *Thalium* has called, *Atriplex fimetaria major*, of which the description is so short, that one cannot tell to which species to apply it. The figure of the *Atriplex sylvestris sinuata* Lob. § appears monstrous; it has it's leaves more deeply cut than any

† *Tabern. Icon.* 427. * *Hist.* 197. § *Icon.* 254.

species of this genus, and it's fruit resembles that of the *Atriplex folio hastato, seu deltoide* Mor. H. R. Bles. The plant which *Caesalpinus* calls *Atriplex sylvestris*, does not agree with the description of ours; but rather with *Morison's*, as we said above. The species of which we are speaking varies: it is found with narrow leaves in the vineyards of *Mont-Valerian*, *Ruel*, and *Argenteuil*; this variety seems to be well represented in *Tabernaemontanus*, under the name of *Atriplex sylvestris*, 2. Icon. p. 427.

5. CHENOPODIUM sylvestre opuli folio. Vaill. 36.

6. CHENOPODIUM spicatum, folio triangulari, dentato. An Blito Pes anserinus dicto similis. *Atriplex vulgaris, sinuata, spicata* D. Plot. Hist. Ox. Raii Synopf. Vaill. 36.

7. CHENOPODIUM, pes anserinus 1. Tabern. Icon. 427. *Atriplex sylvestris, latifolia* C. B. Pin. 119. *Atriplex dicta Pes anserinus* J. B. 2. 975. *Goose-foot or Sow-bane. In waste places.*

FUCHSIUS and *Tragus* affirm, that it kills hogs.

8. CHENOPODIUM, Pes anserinus 2. Tabern. Icon. 428. *Atriplex sylvestris, latifolia, acutiore folio* C. B. Pin. 119. *Atriplex dicta Pes anserinus alter, five ramosior* J. B. 2. 976. *The other Goose-foot. In the same places.*

9. CHENOPODIUM Stramonii folio. Chenopodio affinis, folio lato, laciniato, in longissimum

giffimum mucronem procurrente, florum racemulis fparfis Raii Hift. 3. 123. Atriplex odore & folio Daturae, minori tamen l. xlii. Triumphetti Cat. apud fratrem Raii Hift. 3. 123. Blitum, five Atriplex Pes anferinus dicta, Stramonii acutiore folio, racemosum Pluk. Mantiff. 32. Vaill. 36.

ON the banks of some watery pits beyond Ely; Mr. J. Sherard. It was found alfo about Colcheſter by Mr. Dale. R. Syn. Ed. 3. 154.

10. CHENOPODIUM folio triangulo Inſt. 506. Blitum Bonus Henricus dictum l. Raii Hift. 1. 195. Bonus Henricus Brunſf. 1. 63. & 260. Bonus Henricus Trag. 317. Vaill. 36. Common English Mercury or All-good. In waſte places.

11. CHENOPODIUM annuum, humiſuſum, folio breviori & capillaceo Inſt. 506.

1. CHONDRILLA Juncea, viſcoſa arvenſis, quae l. Dioſcoridis C. B. Pin. 130. Chondrilla viminea J. B. 2. 1021. Chondrilla juncea, viminea, arvenſis Tabern. Icon. 178.

TRAGUS's deſcription of the *Cickorea pro-cera*, ſive 5. does not agree very well with this plant: *Lobel's* figure is very bad: that of *Cluſius*, of which J. Bauhin has taken a copy, is good for nothing: there is a pretty good one in *Tabernaemontanus*, and an excellent one in * *Columna*, under the name

* Col. Phytob. 10.

of *χονδρίλλη*, *Chondrilla*. He observes, that when one pulls it up by the roots, it shrivels itself up, and emits some drops of milk, which curdled in less than a quarter of an hour.

2. *CHONDRILLA Hieracii folio annua* Inst. 457. *Hieracioides annua, glutinosa, floribus parvis* Act. Ac. Reg. Sc. 1721. *Hieracium pulchrum* J. B. 2. 1025. *Vaill.* 36.

THIS plant is annual, not bitter; the leaves are very soft and glutinous; the stalk is fistulous; the semiflorets are yellow, and indented at the extremity. It flowers about the end of *May* and in *June*. *J. Baubin's* figure is preferable to that of *Columna*.

3. *CHONDRILLA Sonchi folio, flore luteo-pallescente* Inst. 475. *Sonchus laevis, lacinatus, muralis, parvis floribus* C. B. Pin. 124. *Lactuca sylvestris murorum, flore luteo* J. B. 2. 1004. *Sonchus sylvaticus* iv. Tabern. Icon. 194. *Ivy-leaved Sowthistle or wild Lettuce. On old walls, and about the entrance into Peak's hole in Derbyshire. I have found it also in Hertfordshire. This is evidently a new family. See Philos. Trans. N. 407. p. 28.*

ANGUILLARA's description of the *Scariola sylvestris, Lactucæ species Galeni*, does not answer the plant of which we are speaking, as the *Baubins* believed.

CHRISTOPHORIANA vulgaris, nostras, racemosa & ramosa H. Ox. 2. 8. *Christophoriana*

riana Cast. 112. Eyft. Tab. 264. Sim. Paul. 46.
Vaill. 37. *Herb Christopher or Bane-berries.*

AMONG the shrubs by *Malham-cove* in
Yorkshire. *R. Syn. Ed.* 3. 262.

1. CHRYSANTHEMUM fegetum Lob. Icon.
552. Chrysanthemum folio minus secto,
glabro J. B. 3. 105. Bellis lutea, foliis pro-
funde incis, major C. B. Pin. 262. *Corn-*
Marigold. *Common amongst the corn.*

2. CHRYSANTHEMUM fegetum nostras,
folio glauco, multiscisso, majus, flore minore
Pluk. Alm. Bot. 102.

IN *corn fields* near *Glastenbury*, but very
rarely. *Pluk.*

1. CICHORIUM sylvestre five officinarum
C. B. Pin. 125. Cichorium sylvestre J. B. 2.
1008. Cichorium sylvestre, Picris Dod.
Pempt. 635. *Wild Succory.* *In waste places,*
and about corn fields.

It's leaves and roots are very bitter, full
of milk, and give a faint red colour to the
blue paper: the leaves stain it a litter more;
they are less bitter, and of a glutinous taste;
the salt which is in the *Succory* does not seem
to differ from natural salt in the earth, but is
joined with a considerable quantity of sul-
phur and terrestrial parts.

BEING * analysed, it yields a great deal of
oil and earth, some acid liquors, a little

Extract of the registers of the royal academy of
sciences.

urinous

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urinous spirit, and some concreted volatile salt.

THE Dandelion yields much the same principles; but it affords no concreted volatile salt: nevertheless their virtues are pretty much alike.

SUCCORY roots and leaves are aperitive, diuretick and cooling: they seem to cool only by removing the too long obstructed humours in the bowels: They are prescribed in broths, ptisans, apozemes and glysters. The juice procures expectoration in the defluxions of the breast: the extract has the same virtues, and purifies the blood: the simple or compound syrup is a good aperitive, especially if two drams or half an ounce of tincture of steel be mixed with one ounce of it: The conserve of it's flowers, is used on the same occasions, in the aperitive bolusses and opiates: these opiates are of great service in the cachexy, dropsy, hypochondria, intermitting fevers. and troublesome heats of the lower belly.

2. CICHORIUM sylvestre, flore roseo C. B. Pin. 126.

3. CICHORIUM sylvestre flore albo C. B. Pin. 126.

These two are only varieties, differing in colour from the first.

1. CICUTA major C. B. Pin. 160. Cicuta J. B. 3. part. 2. 175. Dod. Pempt. 461. Hemlock. On ditch banks.

THIS

THIS plant has an herby, saltish taste: smells of fetid oil, and gives a very deep tincture of red to the blue paper, which makes us conjecture that it contains a salt resembling the *Sal Ammoniac*, involved by a great deal of oil and earth; pretty near the same principles are found in the *Apium*. It's leaves are very lenifying and resolvent; being boiled with milk, they are applied with good success to the piles, and the parts affected with the gout. The cataplasm of *Hemlock* leaves bruised with some snails, and worked up with the four resolvent meals, is excellent for the inflammation of the testicles, for the gout, and sciatica. The *Hemlock* plaster is a good dissolver of scirrhus tumors. This plant is an ingredient in the *Diabotanium* of M. *Blondel*, which is a very good plaster to resolve wens and scrophulous tumors.

2. *CICUTA* minor, *Petroselinum* similis C. B. Pin. 160. *Cicutaria Apii folio* J. B. 3. part. 2. 179. *Cicutaria fatua* Lob. Icon. 280. *The lesser Hemlock or Fool's-Parsley.* It is a common weed in gardens; and, having some resemblance to Parsley, it is often mistaken for that herb; but being poisonous, it is therefore called *Fool's-Parsley*.

THE petals are unequal and bifid. Each seed has four furrows in it; but it is not shagreened as in the first species. The plant flowers in July and August. *Vaill.*

CIRCAEA Lutetiana Lob. Icon. 266. Solanifolia Circaea dicta, major C. B. Pin. 168. Ocimastrum verrucarium J. B. 2. 977. Herba Divi Stephani Tabern. Icon. 730. *Inchanter's Nightshade. In moist and shady places.*

TABERNAEMONTANUS's figure is better than *Lobel's*, where the flowers are represented tetrapetalous, whereas they are dipetalous. The same fault is in *J. Baubin*, who has confounded also the empalement with the petals in his description.

Mr. RAY knew the structure of these parts very well: but we must add to his description, that it's fruits are usually divided into two cells, each of which contains one seed.

1. CIRSIIUM acaulos, flore purpureo Inst. 448. Carlina acaulos, minore purpureo flore C. B. Pin. 380. Chamaeleon exiguus Tragi J. B. 3. 62. Carlina minor, purpureo flore Clus. Hist. clvi. *Dwarf Carline-thistle. On dry banks.*

TRAGUS and *Dalechampius* affirm, that the head of this plant is prickly. *J. Baubin* has described it more correctly.

2. CIRSIIUM majus, singulari capitulo magno, vel incanum varie dissectum C. B. Pin. 377. Cirsium Anglicum, radice Hellebori nigri modo fibrosa, folio longo J. B. 3. 45. Cirsium Anglicum Lob. Icon. 583. *The English soft or gentle Thistle. It is common in moist meadows about Cambridge. It is found*

found in Peckham field: and Merret mentions, that it grows on Barns common.

Mr. RAY has described this plant well. He had reason to find fault with *C. Baubini*'s name, for it's flowers are not very large, nor it's leaves much cut. Mr. Ray has observed also, that it did not appear very different from that which *Clusius* has called, *Cirsium Pannonicum* 1. *pratense*.

3. *CIRSIIUM pratense*, polycephalon vulgare Inst. 448. *Carduus palustris* C. B. Prodr. 156. *Marsh-Thistle*. Common in moist meadows and marshy places.

4. *CIRSIIUM arvense*, *Sonchi folio*, radice repente, flore purpurascens Inst. 448. *Carduus vinearum repens*, *Sonchi folio* C. B. Pin. 137. *Caeanothos Theophrasti* Col. part. 1. 46. *Common Way-Thistle*, or rather *Creeping-Thistle*. In waste places.

M. HERMAN had reason to believe that this plant is the same with the *Carduus in avenâ proveniens* C. B. Pin. and the *Carduus serpens*, *laevicaulis* J. B. 3. 59. Mr. Ray adds to it the *Carduus spinosissimus*, *capitulis parum aculeatis* C. B. Pin. but the figure of the *Onopyxus alter* Lugd. does not very well agree with it: most authors that have mentioned this plant, have taken no notice of the creeping of it's roots: *Columna*'s figure and description are excellent.

5. *CIRSIUM arvense*, Sonchi folio, radice repente, flore albo Inst. 448. *Carduus vinearum repens*, flore albo Hort. Edinb.

6. *CIRSIUM arvense*, Sonchi folio, radice repente, caule tuberoso Inst. 448. *Carduus vinearum repens*, Sonchi folio, floribus albis, caule tuberoso H. R. Par. *Carduus haemorrhoidalis Parisiensium*.

THIS plant differs from the preceding ones, no otherwise than by the tubercles of it's stalk, which are formed by the pricking of some insect; for the vessels being broken, let out the nutritious juice, which produces this tumor: it serves as a nest for the minute eggs which the same insect discharges into it: they pretend that these tubercles, carried in the pocket, cure the piles: some tye them up in a knot at the tail of their shirt.

7. *CIRSIUM Acanthoides*, pratense, flore purpureo Act. Ac. R. Sc. 1718. *Cnicus pratensis Acanthi folio*, flore purpureo Inst. 450. *Cirsion* Dod. Gall. 391. *Vaill.* 38.

THIS differs from the next only in the colour of the flower.

8. *CIRSIUM Acanthoides*, pratense, flore ochroleuco Act. Ac. R. Sc. 1718. *Cnicus pratensis Acanthi folio*, flore flavescente Inst. 450. *Acanthus pratensis* Brofs. 28. *Atractylis aculeata*, foliis maxime laciniatis, capitulis albis Flor. Prufs. 21. Fig. *Vaill.* 38.

CLANDESTINA flore subcaeruleo Inst. 652.

1. CLEMATITIS fylvestris, latifolia C. B. Pin. 300. Clematis latifolia, dentata J. B. 2. 125. Vitalba Dod. Pempt. 404. *Great wild Climber, or Traveller's-Joy. In the hedges.*

DODONAEUS has given a good figure of this plant.

2. CLEMATITIS fylvestris, latifolia, foliis non incis J. B. 2. 125. Clematis latifolia, integra J. B. 2. 125.

IT is a variety of the preceding. One may find upon the same plant, some leaves cut, and others not cut, as appears in *Fuchs's* figure, who calls it *Vitis nigra*, *Hist.* p. 97.

1. CLINOPODIUM Origano simile, elatius, majore flore C. B. Pin. 224. Clinopodium quorundam Origani facie J. B. 3. part. 2. 250. Acinos Lob. Icon. 504. *Great wild Basil. In hedges and thickets.*

2. CLINOPODIUM arvense, Ocimi facie C. B. Pin. 225. Acinos multis J. B. 3. part. 2. 259. Ocimum fylvestre, Acinos Dod. Pempt. 280. *Wild Basil. In chalky and gravelly places.*

3. CLINOPODIUM arvense, Ocimi facie, floribus albis C. B. Pin. 225.

THIS is a variety of the preceding.

1. CLYMENUM Pariesiense, flore caeruleo Inst. 396. Cicercula fylvestris Tabern. Icon. 500. *Chickling-Vetch. In Peckham-field.*

C. BAUHIN confounds this plant with the *Lathyrus latifolius* Pin. which has but two very large leaves upon each pedicle; whereas our plant has two or three pair fastned to the same pedicle; they are three or four lines broad, and an inch and a half long. It's flowers are also much smaller than those of the *Lathyrus latifolius*. I believe Mr. Ray has spoken of it under the *Lathyrus Vicia-formis seu Vicia Lathyroides nostras* Hist. 899.

2. CLYMENUM flore parvo singulari, dilute ianthino. *Vaill.* 39.

1. CNICUS caeruleus humilis & mitior *Inst.* 451. *Eryngium* minimum, mitius, capitulo magno H. R. Par.

2. CNICUS *Atractylis lutea dictus* H. L. Bat. *Atractylis lutea* C. B. Pin. 379. *Atractylis vera*, flore luteo J. B. 3. 83. *Atractylis* Dod. *Pempt.* 736.

* COLUMNA gives an excellent figure of this plant under the name of *Atractylis Theophrasti Dioscoridis sanguineo succo*. § *Caesalpinus* describes it under the name of *Carthamus sylvestre*; which C. Bauhin confounds with the *Carlina sylvestris, vulgaris*. *Pena*, *Lobel*, and the *Hist. Lugd.* affirm, that it is found also with a purple flower in *Languedoc*. M. *Magnol* suspects that they were led into this

* Col. part. 1. 19.

§ *Caesalp.* pag. 532.

error by the flowers of that species of Carline-thistle, which they call at *Montpelier*, *Carlina Richeri*, which has purple flowers, and grows very often among the *Atractylis* and Thistles.

J. BAUHIN observes, there are three figures of *Atractylis* in the *Hist. Lugd.*; and *Camerarius* said justly, that the stalks of this plant were too crooked in the figure which *Matthiolus* gave of it: that of *Tabernaemontanus* has the same fault: they distil the *Atractylis* at *Paris*, and use the water of it instead of that of the *Carduus benedictus*.

3. CNICUS pratensis, Acanthi folio, flore flavescente Inst. 450. Carduus pratensis, latifolius C. B. Pin. 136. Carduus palustris Tragi Lob. Icon. 11. J. B. 3. 43.

TRAGUS's figure would be good enough, if the leaves encompassing the flower, had been represented in it, which makes the principal character of *Cnicus*. There is a representation of them aimed at in *Lobel's* figure; but then he has represented the other parts imperfectly.

4. CNICUS pratensis, Acanthi folio, flore purpureo Inst. 450.

THIS differs from the preceding, only in the colour of it's flower.

5. CNICUS caeruleus, humilis & mitior Inst. 451. Eryngium minimum mitius, capitulo magno H. R. Par.

1. COLCHICUM commune C. B. Pin. 67. Colchicum J. B. 2. 649. Dod. Pempt. 460. *Meadow Saffron.* In meadows in the west and north of England.

TRAGUS and *Cordus* took the flower of this plant to be hexapetalous; it is certainly monopetalous.

1. COLUTEA vesicaria C. B. Pin. 396.

2. COLUTEA vesicaria, vesiculis rubentibus J. B.

1. CONFERVA Plinii Lob. Icon. 257. Alga viridis capillaceo folio C. B. 364. Muscus aquaticus bombycinus tenuissimis filamentis Flor. Prufs. 173. cum fig. Vaill. 40. *Hairy River-weed or Crow-silk.* Common in running waters.

2. CONFERVA trichoides vel Trichomanes aquaticum Lugd.

3. CONFERVA minor ramosa H. Ox. 3. Icon. Sect. 15. Tab. 4. Conferva viridis capillacea brevioribus fetis ramosior, sive Conferva minor ramosa H. Ox. 3. 644. Vaill. 40.

IN some springs at *Godalmin* in *Sussex*. [*Surrey?*] Syn. Stirp. Brit. Ed. 3. 59.

4. CONFERVA reticulata Raii Hist. App. 1852. Muscus aquaticus bombycinus retiformis Flor. Prufs. 173. cum fig. Vaill. 40.

IN ditches near *Westminster*, and on *Hounslow-beath*. Syn. Stirp. Brit. Ed. 3. 59. Found also in *Coe-fen*, behind *St. Peter's-College* in *Cambridge*, by Mr. *Davies*, Fellow of *Queen's-College*.

1. CON-

1. CONVULVULUS major, albus C. B. Pin. 294. Convolvulus major J. B. 2. 154. Smilax laevis Dod. Pempt. 392. *Great Bindweed. In hedges.*

CAESALPINUS believed that the roots of this plant died every year, but it is certainly perennial.

2. CONVULVULUS minor, arvensis, flore roseo C. B. Pin. 295. Helxine Cissampelos multis, five Convolvulus minor J. B. 2. 157. Smilax laevis, minor Dod. Pempt. 393. *Small Bindweed. On banks.*

As C. Baubin has quoted *Anguillara* upon this plant; this author seems to have spoken of it as three different species: nevertheless they are only three Synonymies which he gives it, and which must be placed after one another; viz. *Orobanche Theophrasti*, *Helxine Cissampelos Dioscoridis*, and *Scamonia parva Plinii*. I know not whether this plant be purgative, as several persons affirm; but I know from the experience of our peasants of *Provence*, that being externally applied it is a good vulnerary.

3. CONVULVULUS minor, arvensis, flore candido C. B. Pin. 294.

4. CONVULVULUS minor, arvensis, flore albo cum purpureo umbilico C. B. Pin. 295.

THESE two last are only varieties of the second.

1. CONYZA major, vulgaris C. B. Pin. 265. Conyza major, Matthioli, Baccharis quibusdam

dam J. B. 2. 1051. *Conyza major*, altera Dod. Pempt. 51. *Great Fleabane* or *Plowman's Spikenard*.

IN *Charlton-wood*, and many other places.

DODONAEUS's figure is good enough, and so is that of *Matthiolus*, except the flowers, which are too hairy: as for the *Baccharis* of the same author, *Pena* and *Lobel* have very judiciously observed, that he had engraved a sorry specimen of some species of *Verbascum*, and perhaps dried. The *Conyza major* Tragi, which *C. Bauhin* has referred to ours, ought rather to be referred to the *Conyza media*, *Asteris flore luteo*, vel *tertia Dioscoridis*; and *J. Bauhin* is by no means excusable for having confounded with our *Great Fleabane* the *Incensaria Caesalp.* which is the *Aster luteus*, radice odorâ *C. B. Pin.* This plant is well described and engraved in * *Columna*, under the name of *Asteris altera species Apula an Baccharis*.

2. CONYZA Linariae folio Inft. 455. *Linaria folioso capitulo*, luteo, major *C. B. Pin.* 213. *Heliochrysos* Tragi, five *Linaria tertia* J. B. 3. 151. *Linofyris Nuperorum* Lob. Icon. 409.

THE figures of *Columna* and *Tabernaemontanus* are better than those of *Lobel* and *Clusius*. The figures of these two last authors

* Part. 1. 251.

are in the *Hist. Lugd.* but they represent better the *Aster Tripolii folio C. B. Pin.* as it appears when the flowers are gone. The *Baubins* have quoted *Linaria quarta Loniceri* * instead of *Linaria tertia Loniceri*.

1. CORALLINA fluviatilis non ramosa. Equisetum five Hippuris exigua, fluviatilis petraea nuda Virginensis D. Banister. Pluk. Phyt. Tab. 193. fig. 7. *Vaill.*

2. CORALLINA pinguis, ramosa, viridis. Conferva fontalis geniculata, lubrica, minor Dillen. Cat. 200. & Eph. Nat. Cur. Cent. 5 & 6. App. 61. Tab. xiii. fig. 4. *Vaill.*

CORIANDRUM majus C. B. Pin. 158. *Coriander.* It is sown plentifully about Coggeshall, Tolesbury, and other places in Essex.

1. CORNUS hortensis mas C. B. Pin. 447. Cornus sativa seu domestica J. B. 1. 210. Cornus Clus. Hist. 12. Cam. epit. 159.

MATTHIOLUS and *Dodonaeus* had no reason to call the flowers of this tree mossy. They consist of four petals, and sometimes of five. *J. Baubin* seems to have confounded the petals with the empalement. *Camerarius*, to agree with *Theophrastus's* description, says, that the flowers of the Cornelian-cherry are like those of the Olive-tree. But those of the Olive-tree are monopetalous. The leaves of the Cornelian-cherry are very

* Lon. 155.

bitter: the fruit is sour, stiptick, and gives as lively a red to the blue paper as Alum, which gives us room to guess that it contains a salt analogous to it. Thus it is no wonder that *Hippocrates*, *Dioscorides* and *Pliny* believed this fruit to be good to stop a looseness. *Ruellius* says, that they preserve it for this disorder in bottles of honey or syrup. An electuary is made of the strained pulp for a dysentery, and to restore the appetite. To make a wine of Cornelian-cherries, *J. Bauhin* advises to put ten pound of these fruits into fifty quarts of good red wine, mixed with six quarts of Steel wine; let the whole ferment a fortnight, after which draw it out and keep it in bottles for a looseness. The dried Cornelian-cherries are used in cooling and astringent ptisans. They are preserved with sugar; and a marmelade is made of them. Their juice thickned without sugar, is called *Rob Corni*.

2. CORNUS foemina C. B. Pin. 447. *Cornus foemina putata*, *Virga sanguinea* J. B. 1. 214. *Virga sanguinea* Dod. Pempt. 782. *The female Cornel, or Dog-berry-tree, or Gatter-tree, or Prickwood. Common in hedges.*

CAESALPINUS, as he is quoted by *C. Bauhin*, seems to have spoken of this plant as of two different species; nevertheless he only says, that the *Virga sanguinea* is called *Sanguen* in *Italian*. The description of the
Pseu-

Pseudocrania of *Cordus* does not agree with this plant at all: however the figure does not represent it amiss. *C. Baubin*, *Pena*, *Lobel*, *Dodonaeus*, and *Schwenckfelt*, believed it to be the same plant, but *J. Baubin* was not of their opinion.

THE fruit of *Cornus foemina* is very bitter, stiptick, and gives a pretty deep red colour to the blue paper.

1. CORONILLA minima Inft. 650. Ferrum equinum Gallicum, filiquis in summitate C. B. Pin. 349. Polygalon Cortusi J. B. 2. 351. Lotus enneaphyllos Lugd. 510.

THIS plant has very short stalks, and rises but little above the ground: by which it is chiefly distinguished from the *Coronilla seu Colutea minima* * *Lob.* which is a little shrub, pretty strong, and like this plant: this is not ill engraved in the *Hist. Lugd.* and the description of it would have been very good, if they had described the articulation of the cods, and the thickness of the roots.

2. CORONILLA herbacea, flore vario Inft. 650. Securidaca dumetorum major, flore vario, filiquis articulatis C. B. Pin. 349. Melilotus quinta Tragi J. B. 2. 349. Hedyfarum purpureum Tabern. Icon. 516.

TABERNAEMONTANUS's figure would be good, if the fruits were engraved in it: we

* *Lob. Icon.* 87.

must retain that of *Clusius*, who calls it *Securidacae II. prior species*: it represents the stalks also very well.

3. CORONILLA herbacea, flore albo Juss. 325.

CORONOPUS hortensis C. B. Pin. 190. Coronopus five Cornu cervinum vulgo, spica Plantaginis J. B. 3. 509. Herba stella five cornu cervinum Dod. Pempt. 109. *Buck's-horn Plantain*.

THIS differs only by culture from the wild one; *which is common on heathy and sandy grounds*.

CORYLUS sylvestris C. B. Pin. 418. Corylus sylvestris Lob. Icon. 192. *The Hazel-nut-tree. In woods and hedges*.

THE cream of these nuts is good in the stone and heat of urine. Emulsions may be made of them. *Quercetan* gave a dram of the powder of nut-shells, mixed with an equal quantity of prepared Coral, dissolved in a glass of the water of *Carduus benedictus*, or Corn-poppy, in the pleurisy.

1. CRATAEGUS folio subrotundo ferrato Inft. 633.

2. CRATAEGUS folio subrotundo, minus laciniato. *Vaill.* 43.

3. CRATAEGUS folio laciniato Inft. 633. Sorbus torminalis & Crataegus Theophrasti J. B. 1. 63. Mespilus Apii folio, sylvestris, non spinosa, five Sorbus torminalis C. B. Pin. 454. Sorbus torminalis Dod. Pempt.

803. *The common wild Service-tree or Sorb. In woods and hedges.*

J. BAUHIN blames the author of the *Hist. Lugd.* * for giving two figures of this tree. But we ought to take notice that this author tells us, that he speaks of it a second time, only to refresh his reader's memory.

1. CRUCIATA hirsuta C. B. Pin. 335. Gallium latifolium, Cruciata quibusdam, flore luteo J. B. 3. 717. Cruciata Dod. Pempt. 357. *Cross-wort. In hedges and thickets.*

It is thought to be vulnerary, and it's decoction to be good for ruptures.

2. CRUCIATA palustris, alba Inst. 115. Gallium palustre album C. B. Pin. 335. Gallium album Tabern. Icon. 151. *White Ladies-Bed-straw. In wet places.*

3. CRUCIATA palustris, supina, minima Inst. 115.

It is distinguished from the preceding by it's lying on the ground: it's leaves are but about two lines and a half long and one line broad: their point is much sharper.

4. CRUCIATA glauca, angustifolia. Vaill. 43.

5. CRUCIATA erecta, angustifolia, glabra. Rubia erecta quadrifolia J. B. 3. lib. 36. p. 717. *Cross-wort, Madder, or four-leaved, mountainous Bastard Madder.*

* Lugd. 99. 332.

NEAR Orton, Winander-meer, and other places in *Westmorland*; and on the highest mountains in *Wales*; it proceeds in great plenty out of the clefts of the rocks. *Syn. Ed. 3. p. 224.*

CUCUBALUM Plinii Lugd. 1429. Cucubalum quibusdam, vel Alfine baccifera J. B. 2. 175. Alfine scandens, baccifera C. B. Pin. 250. Alfine repens Dod. Pempt. 403.

DODONAEUS's figure is better than that in the *Hist. Lugd.*

1. CUPRESSUS fusa five mas Pluk. Almag.

2. CUPRESSUS fastigiata foemina Pluk. Almag.

1. CUSCUTA minor Inst. 652. Epithymum five Cuscuta minor C. B. Pin. 219. Epithymum Tabern. Icon. 57.

THE *Cuscuta* is found upon almost all plants. It cannot live without their assistance, for it's roots perish soon after the seed is come up, and then this plant, which is nothing else but a tuft of reddish hairs, nourishes itself by twisting about the neighbouring plants. It's fibres do not only embrace them, but fasten themselves strongly to them by rough nipples, ranged like the beads of a necklace. These nipples insinuate their points into the pores of the bark, burst the vessels of which it is composed, and receive the extravasated nutritious juice. The flowers grow in round bunches. Each flower is a little cup of about two lines diameter, per-

perforated at the bottom, expanded, cut into four or five segments, and adorned with some very short chives loaded with yellow summits. The empalement is cut after the same manner with the petal, and sends forth a pointal, which fastens itself in the hole of the petal, and afterwards becomes a membranous fruit, almost round, raised with three or four rounded ribs. This fruit is perforated at the bottom, and fastned to a little capsule at the bottom of the empalement, which wraps up the lower part of the same fruit: it contains some small, brown seeds. We do not make use of the *Cuscuta* in physick in this country. That which is brought from the *Levant*, under the name of *Venetian Dodder*, does not purge, as I have experienced several times. It is rather stomachick and aperitive.

2. *CUSCUTA* major C. B. Pin. 219. *Dodder. On pulse.*

CYANUS segetum, flore caeruleo C. B. Pin. 273. *Cyanus hortensis* flore simplici ejusd. *Cyanus* J. B. 3. 22. *Cyanus flos Dod.* Pempt. 251. *Blue-bottles. Amongst the corn.*

CAMERARIUS speaks of this plant under the name of *Cyanus minor*, and not of *Cyanus major*, as *C. Bauhin* believed: *Camerarius* affirms, that in *Saxony* they give a glass of beer, in which a handful of it has been boiled, to those who have the jaundice and retention of urine. The same author bathed

the gums of young children with the distilled water of the *Cyanus*, mixed with the juice of Cray-fish, to make them cut their teeth easy: the powder of this plant, according to the same author, resolves the St. *Anthony's* fire in the face. *Tragus* says, that half a dram of the powder of the seed of Blue-bottles is a pretty good purge; and that the distilled water of it's flowers is excellent for the redness and inflammation of the eyes; some Saffron and Camphire may be added to this water to render it more active: In fine, the decoction of *Cyanus* is diuretick and emmenagogick.

1. CYNOGLOSSUM majus, vulgare C. B. Pin. 257. Cynoglossum vulgare J. B. 3. 598. Cynoglossum Dod. Pempt. 54. Great Hound's-Tongue. In waste places.

THE plant which * *Columna* has called *Cynoglossa vulgaris*, is very different from this; it is distinguished not only by it's leaves, which are whiter, and, as it were, silky, but by it's flowers which *Columna*, *Clusius*, and *Morison* have described very well. *Flos initio candicat* (says *Clusius*) *purpurascentibus venis tenuibus distinctus, quae deinde in colorem caeruleum transeunt*; we must then refer to the *Cynoglossum Creticum*, *latifolium foetidum* C. B. Pin. 257. the *Cynoglossa vulgaris* Col. and the *Cynoglossum folio molli*,

* Part. 1. 169.

incano, flore caeruleo, striis rubris variegato
Mor. H. R. Bles.

THIS species is very common by way sides in *Provence, Languedoc, Spain, and Italy*; it is needless to go to look for it in *Candy*; the common one, of which we are speaking, is found only in cold or temperate climates; it's leaves are a little longer, dark-green, inclining to grey, and it's flowers are of an obsolete red colour: it stinks like a Dog-kennel, as do the other species of this genus.

THE bark of it's root is a little bitter, saltish, stiptick and glutinous; it gives a pretty deep red colour to the blue paper; it is likely that the *Sal Ammoniac*, which is naturally in the salt of the earth, predominates in this plant, where it is tempered with a great deal of flegm, earth and fetid oil.

THE Hound's-tongue analyzed gives strong indications of an acrid salt and sulphur: thus the root of it is proper to stop all sorts of defluxions, and to correct acrid humours. It is used in ptisans and broths: it has given name to the *Pilulae de Cynoglossa*, which *Faventinus* recommends very much for catarrhs, but those which are described in *du Reno-*
daeus's dispensatory must be used. *Faventinus* mixed half a dram of these pills with one dram of aloes, two drams of the juice of *Liquorice*, and as much syrup of *Violets* as was necessary to form them into pills: the leaves of the *Hound's-tongue* are vulnerary and deterfive.

2. CYNOGLOSSUM majus vulgare flore albo C. B. Pin. 257.

1. CYPEROIDES spica rufa, five caule triangulo Inst. 529. Gramen Cyperoides, latifolium, spica rufa, five caule triangulo C. B. Pin. 6. Gramen Cyperoides, cum paniculis nigris J. B. 2. 494. Gramen Cyperoides Lob. Icon. 11. *Great vernal Cyperus-grass. In deep ditches.*

C BAUHIN pretends there are three figures of this plant in the *Hist. Lugd.* but I do not believe that the figure and description, which they have given there of the *Carex Tragi*, agrees with this plant.

2. CYPEROIDES spicâ pendulâ, brevior Inst. 529. Gramen Cyperoides spicâ pendula brevior C. B. Pin. 6. Graminis Cyperoides genus, Pseudo-Cyperus Lobelio, spicis vel paniculis pendentibus ex longis pediculis J. B. 2. 496. Pseudo-Cyperus Dod. Pempt. 339. *Bastard Cyperus, with short pendulous spikes. In watery places, but not common.*

THALIUS speaks of this plant under the name of *Pseudo-Cyperus ὀλιγόκαρπος major*. Mr. Ray observed that it's spike did not come out of the same place of the stalk, as the figures of the authors represent them.

3. CYPEROIDES spica pendula, longior & angustior Inst. 529. *Many-spiked Cyperus-grass, with long, pendulous heads.*

ON the west side of *Primrose-hill*; *Mer. Pin.* In the ditches about *Braintree* in *Essex*, and elsewhere, *R. Syn. Ed.* 3. 420. In the great ditch at the end of the little thicket adjoining to *Teversham-moor*, and in other great ditches, *Cat. Cant. App.* In the great ditch in *St. George's fields*.

4. CYPEROIDES polytachion, lanuginosum
Inst. Gramen Cyperoides, polytachion, lanuginosum Raii Cat. Ang. *Many-spiked, hairy Cyperus-grass. In moist pastures.*

THE roots creep, are fibrous, whitish, and divided by several knots. The stalks are pretty slender, a foot and a half high, triangular, garnished with some leaves hollow like a gutter, nine or ten inches long, and two lines broad; those towards the top are shorter: the flowers and fruits come out of their bosoms, but the first spikes bear the seeds, and the last only flowers. These are smaller than the others, composed of several scales, amongst which some chives and yellowish summits appear. The spikes which bear the seeds are an inch long, each sustained by a very slender pedicle an inch and a half long. Each spike is loaded with several hairy vesicles, whitish, almost pyramidal, about three lines long, pierced at the point, and, as it were, forked: out of the bottom of these Vesicles arises a three-cornered pointal, pointed at the two ends, terminated by a thred consisting of three

parts, which appear out of the Vesicle. The pointal becomes a seed, red, smooth, shining, triangular, one line long, more pointed at the top than at the bottom: when this seed is ripe the vesicles become brown.

It loves very moist places: the flower appears in *May*, and the seed is ripe in *June* and *July*.

5. CYPEROIDES polystachion, spicis teretibus, erectis *Inst.* 529. Gramen Cyperoides, polystachion, spicis teretibus, erectis. *Great Cyperus-grass, with round, upright spikes.*

In several pools about *Middleton* in *Warwickshire*. In the river at *Redbridge* beyond *Epping*, and in watery places about *Oxford*, as at *Hockley*: *Syn. Stirp. Brit. Ed.* 3. 419.

6. CYPEROIDES vesicarium, glabrum, spicâ, pendulâ, longiore, *Inst.* 530.

It's roots are fibrous, white and hairy. The stalk is two foot high, triangular, accompanied at the bottom with guttered leaves, a little more than a foot long, about two lines broad. Those upon the rest of the stalk are narrower; out of their bosoms, and almost from the bottom of the stalk, proceed spikes, two inches long, bending and fastened to a very slender pedicle, two or three inches long. They are formed by several little bladders pretty much inflated, two lines long, greenish, smooth pyramidal; out of the bottom of each bladder arises a triangular pointal, terminated by a thred consisting of three parts which
appear

appear out of a little hole in the bottom of each bladder: this pointal becomes a seed of the same figure, reddish, a line and a quarter long, pointed at the two ends: when it is ripe the bladders become brown. The last spikes are much slenderer than the others, and composed only of some red scales, placed one above another; amongst which some chives loaded with yellowish summits appear.

It flowers in *May*; it's seed is ripe in *June* and *July*.

7. CYPEROIDES vesicarium, humile, locustis rarioribus Inft. 530.

It's roots are slender, fibrous, brown: the stalks only about a foot high; triangular, smooth, green, accompanied at their origine with some leaves no longer than seven or eight inches, pointed, guttered, two lines broad: these stalks have no leaves just at the top, where there is usually a knot, and a pretty short leaf, out of the bosom of which, two spikes often proceed, the uppermost is covered with small scales, amongst which are very slender chives, adorned with yellowish summits: the other spike is composed of several little bladders, pretty much spaced, intermixed with small leaves two lines long, pointed, red, whitish upon the back and edges: these bladders are smooth, two lines long, bored at the end; out of their bottom arises a three-cornered pointal, the

thred of which consists of three parts, which appear out of the side of each bladder: this pointal afterwards becomes a triangular seed, red, shining, one line long, pointed at both ends.

THIS plant flowers in *May* and *June*; it's seed is ripe in *July*.

8. CYPEROIDES spicis parvis, longe distantibus Inst. 529. Gramen Cyperoides spicis parvis, longissime distantibus Raii Hist. 1295. *Cyperus grass with short spikes far distant from one another.*

IN a beggy place, not far from Machin's-mill, not far from Witham towards Maldon in Essex.

9. CYPEROIDES minus, spicis densioribus Inst. Gramen Caryophyllaeum Tabern. Icon. 210. Gramen Caryophyllatae foliis spicâ divulsâ C. B. Pin. 3. *The least vernal Cyperus grass.*

THALIUS's description of the *Graminis Loliacei octavi* 4. species, answers this plant very well; for he affirms, it's spikes are disposed almost like a fan, but we must not confound it with the *Gramen nigrum* Lugd. the spikes of which grow in the bosoms of the leaves.

10. CYPEROIDES palustre, aculeatum, capitulo brevior Inst. 529. Gramen palustre, aculeatum, Germanicum vel minus C. B. Pin. 7. Gramen palustre, echinatum Lob. Icon. 15. J. B. 2. 497. *Marsh Hedgehog-grass, or small*

small echinate Cyperus-grass. In marshy and moist meadows.

11. CYPEROIDES nigro-luteum, vernum, majus Inst. 529. Graminis nigro-lutei verni varietas major J. B. 2. 494. *Great narrow-leaved vernal Cyperus-grass. In deep ditches.*

Mr. RAY observed that this plant was but a variety of the *Gramen Cyperoides, latifolium, spicâ rufa, caule triangulo* Pin. 7. *Baubin* seemed to doubt of it: we must refer to this species, the *Gramen nigrum* Lugd. which *C. Baubin* has confounded with the preceding.

12. CYPEROIDES nigro-luteum, vernum minus Inst. 529. *Gramen Cyperoides, spicis Caryophylleis, vulgatissimum* Raii Hist. 1293. Graminis nigro-lutei verni varietas minor J. B. 2. 494.

Mr. RAY has described this plant very well.

13. CYPEROIDES sylvarum tenuius spicatum Inst. *Slender-eared Wood-Cyperus-grass. Common in woods.*

14. CYPEROIDES polystachion flavicans, spicis brevibus prope summitatem caulis Inst. 530. *Yellowish Cyperus-grass with short spikes. In meadows and pastures.*

15. CYPEROIDES latifolium, spica spadiceo-viridi, majus Inst. 529.

16. CYPEROIDES sylvarum, spica varia. *Gramen Caryophyllatum, montanum, spica varia* C. B. Prod. 9. *Cyperoides montanum, spicis*

spicis floriferis, feminiferis (e rarioribus granis triquetris constantibus) interspersis Dillen. Cat. Giss. 50. Cyperoides spicis variis nemonense Flor. Jen. 305. Gramen Caryophyllum polycarpon fructu triangulo Flor. Pruss. 114. *Vaill.* 44.

It begins to flower about the latter end of *March*. Three chives with pale yellow summits come out of each scale. I have not perceived any embryo of a seed in the scales, out of which the chives proceed; there are certainly none at all. It is a true Cyperoides. *Vaill.*

17. CYPEROIDES angustifolium, spicis sessilibus in foliorum alis Inst. *Narrow-leaved Cyperus-grass with small panicles.*

THIS is a true species of Cyperoides. *Vaill.*

18. CYPEROIDES quod Gramen Cyperoides majus, praecox, spicis turgidis, teretibus, flavescentibus H. Ox. 3. *Vaill.* 45.

OBSERVED by the side of brooks about *Oxford* by Mr. *Bobart*. *Syn. Stirp. Brit. Ed.* 3. 420.

1. CYPERUS odoratus, radice longa, five Cyperus officinarum C. B. Pin. 14. Cyperus longus cum mucronibus foliorum & floribus Camer. in Matth. Germanice pag. 8. *Vaill.* 45. *The ordinary sweet Cyperus or English Galin-gale.*

FOUND by Mr. *Newton* in the isle of *Purbeck*, *Dorsetshire*, near a chapel, on the side
that

that looks towards *Portland* island. *Syn. Stirp. Brit. Ed. 3. 425.*

2. CYPERUS minimus, panicula sparsa, flavescens *Inst. 527.*

3. CYPERUS minimus, paniculâ sparsa, nigricans *Inst. 527.* Gramen Cyperoides minus, paniculâ sparsa nigricans *C. B. Pin. 6.* Gramen parvum, pulchrum aliud, paniculâ compressa nigricans *J. B. 2. 471.* Gramen Cyperoides, minimum nigricans panicula *Adv. part. 2.*

4. CYPERUS gramineus *J. B. 2. 504.* Gramen Cyperoides, miliaceum *C. B. Pin. 6.* Cyperus graminea, five miliacea *Lob. Icon. 79. Millet-Cyperus-grass.*

By the *Thame* side near *Tamworth* in *Warwickshire*. In a brook near *Haverford-West* in *Pembrokeshire*. *Mr. Dale* observed it by the river *Blackwater*, at a mill below *Bocking* in *Essex*. *R. Syn. Ed. 3. 427.* In the ditch by the road to *Kentishtown*, a little beyond *Pancras* church, *Mr. Newton*.

J. BAUHIN's third figure is not over good, it is much better than that in *Lobel's* works, and in the *Hist. Lugd.*

5. CYPERUS vulgator, paniculâ sparsâ, *Inst. 527.* Gramen Cyperoides, paniculâ sparsâ, majus *C. B. Pin. 6.* Gramen Cyperoides vulgatus, aquaticum *J. B. 2. 495.* Gramen Cyperoides, aquaticum vulgatus *Lob. Icon. 20. Water or marsh Cyperus-*

perus-grass with a sparsed panicle. In the isle of Ely, and in the isle of Dogs.

LOBEL has a very good figure of this plant; but he ought to have added some tubercles to the roots. His description of the * *Cyperus aquaticus, septentrionalis*, answers it pretty well; but his figure is very bad, and does not agree with the description: so that I believe that *Lobel* has spoken of it under two different names.

I. CYTISO-GENISTA scoparia, vulgaris flore luteo Inst. 649. *Genista angulosa & scoparia* C. B. Pin. 395. *Genista angulosa, trifolia* J. B. I. 388. *Genista* Dod. Pempt. 761. *Common Broom. On heaths and other waste places abundantly.*

C. BAUHIN has quoted, through mistake, *Genista minor, seu non aculeata* Lon. for *Genista major seu non aculeata* Lon. § *Cordus* has observed that this plant stinks like the Elder: it's smell seems stronger to me, and to approach to that of the fetid oils: it's leaves are bitter, and give no redness to the blue paper: whence we may conjecture, that they contain a salt resembling the natural salt in the earth, mixed with a great deal of fetid oil: thus this plant is aperitive and diuretick. *Pena* and *Lobel* affirm, that in *Guiene* and *Auvergne*, the people eat Broom-

* Lob. Obs. 40.

§ Lon. 39.

flowers

flowers in fallads, without any provocation to vomit. *Simon Paulli* has observed however, that two drams of these flowers, infused in hydromel, purged very well. If it be so, it is probable that the vinegar stops their purgative quality, for every body knows that acids weaken purgatives. In the *Low* countries, and in many parts of *Germany*, they pickle the buds of the flowers of this plant in vinegar and salt, just as they pickle capers in *Provence*, *Italy* and *Spain*. These authors also have observed the seed of Broom to be very little emetick. *Tragus* recommends the distilled water of Broom-flowers for the stone: he says, that a scruple of the seed powdered is sudorifick, and that a glass of the juice of the branches macerated in water, gives great relief in the sciatica and quinsy. *Dodonaeus* prescribed the infusion of the young shoots, to bring off the serosities of hydropical and cachectick persons by urine: he also gave them to drink the ashes of the same plant infused in white-wine; but he gives notice that they are very acrid. They may be corrected with the cream of tartar. *Julius Caesar Claudinus* mixed them with the salt of Wormwood, and has published this secret as an excellent remedy for the dropsey *. The extract of the leaves has

* Lib. 2. de ingress. ad infirmis.

the same virtues. The conserve and extract of the flowers are good for the diseases of the stomach. They are used in the balsamick pills, which are taken before meals. These pills are strengthening, and keep the belly open: they are made after the following manner: Mix the extract of eight ounces of Rhubarb, that of the like quantity of Aloes, four ounces of Mastick, six ounces of Myrrh, two ounces of saffron, one ounce of the extract of Broom-flowers, and as much balsam of Peru; make them into pills, and let a dram be the dose.

2. CYTISO-GENISTA scoparia, vulgaris flore albo Inft. 649. Genista alba Tabern. Icon. 1100. Damafonium stellatum Lugd. 1058. J. B. 3. 789. Plantago aquatica stellata C. B. Pin. 190. *Star-headed Water-Plantain.* *In standing waters in many places.*

THIS plant has white, fibrous roots, which send forth smooth leaves, an inch, and sometimes two inches long, and half an inch broad: they are pointed, cut at their bases, and sustained by a tail, from one to three inches long, adorned with two ears at the origine. The stalks are naked, divided into branches, the ends of which are terminated by little rays, disposed in an umbel, about an inch and a half long, each terminated by a flower, with three white petals, yellow at the nail, almost round, and about three lines long. The middle of the flower is occupied
by

by a tuft of chives, loaded with yellow summits, encompassing a six-rayed pointal, which afterwards becomes a star-like fruit, composed of six pods, which are four or five lines long, membranous, flat at the sides, fastned to the same centre, filled with two or three black, shining seeds, one line long, adorned with little circles upon the back. It flowers in *June*.

1. DAUCUS vulgaris Clus. Hist. cxcviii. Pastinaca tenuifolia, sylvestris Dioscoridis, vel Daucus officinarum C. B. Pin. 151. Pastinaca sylvestris, five Staphylinus Graecorum J. B. 3. part. alt. 62. *Wild Carrot or Birdsnest. Common in pastures.*

THE seed of this plant is diuretick, aperitive and hysterick: it is commonly used instead of the *Daucus Creticus*.

2. DAUCUS annuus minor floribus rubentibus Inst. 308. Caucalis femine aspero, flosculis rubentibus C. B. Prod. 80. Anthriscus quorundam, femine aspero, hispido J. B. 3. part. 2. 83. *Hedge-Parsley. Common in hedges.*

C. BAUHIN affirms, not without reason, that it is the *Daucoides minor Cord.* * so that *J. Bauhin* was in the wrong to take it for the *Daucoides-major* of the same author.

3. DAUCUS annuus minor, flosculis albis Inst. 308. Anthriscus quorundam, femine

* Hist. 159.

aspero, hispido, umbellis albicantibus J. B. 3. part. 2. 83. descript.

4. DAUCUS segetum humilior & ramosior. Caulalis arvensis, humilior & ramosior Hist. Ox. 3. 308. N. 9. Caulalis pumila segetum Goodyer, Caulalis segetum minor, Anthriscus hispido similis Raii Hist. 468. *Vaill.* 46. *Small Corn-Parsley. Common amongst the corn.*

4. DAUCUS annuus, ad nodos floridus Inst. 308. Caulalis nodoso echinato femine C. B. Math. emac. 404. Caulalis nodoso echinato femine, Anthriscus hispido affinis, si non ejus varietas J. B. 3. part. 2. 83. *Knotted-Parsley. On Banks.*

Mr. RAY * has observed, that *J. Bauhin* had no reason to suspect that this species was a variety of the preceding.

DELPHINIUM segetum, flore caeruleo Inst. 426. Consolida regalis, arvensis, flore caeruleo C. B. Pin. 142. Consolida regalis flore minore J. B. 3. 210. Delphinium vulgare Clus. Hist. ccv. *Lark-Spur. Amongst the corn by the foot-way from Cambridge to Teversham plentifully. It flowers in July.*

TABERNAEMONTANUS says, the conserve of the flowers eases the gripes of children: and *Simon Paulli* affirms, that the flowers macerated in rose-water, and applied as a

* Hist. 468.

cataplasm, assuage the inflammation of the eyes. The plant is said to be vulnerary and diuretick.

1. DENS Leonis latiore folio C. B. Pin. 126. Hedypnois, five Dens leonis Fuchsi J. B. 2. 1035. Dens leonis Dod. Pempt. 636. *Dandelion.* In meadows and pastures.

It's leaves are very bitter, and give a faint tincture of red to the blue paper: the roots give it a much deeper; they are bitter, stiptick, and deterfive: it's salt very much resembles that which *Mullerus* has called, *Terra foliata Tartari*; but in the *Dandelion*, this salt is much more acid in the roots than in the leaves, and is united in all these parts with a great deal of oil and earth.

THUS this plant is aperitive, diuretick, vulnerary and febrifugous. *Tragus* prescribes the water of it in internal inflammations. *Barbette* advises to take the juice of it: it purges the blood by urine: the juice is successfully used in a nephritick colick, and retention of urine: the leaves of *Dandelion* are eaten as a fallad, with oil and sugar. To abate a violent cough, and cure rheums, they boil morning and evening a quarter of a pint of cow's milk, and pour upon it an equal quantity of the decoction of *Dandelion* boiling hot, and a little sugar-candy: it's extract is given from half a dram to a dram and a half: the ptisan of it's roots moderates, provokes urine, and is good for all sorts of fevers.

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2. DENS Leonis angustiore folio C. B. Pin. 126. Aphaca angustiori folio Caesalp. 508.

THIS species seems to be but a variety of the preceding, which varies in the bigness and incisure of it's leaves.

3. DENS Leonis tenuissimo folio C. B. Prodr. 62. Hieracium foetidum III. Col. part. 2. 31.

4. DENS Leonis pumilus, saxatilis, asper, radice fibrosa H. Oxon. 3. Icon. Tab. 7. Sect. 7. N. 13. Taraxaconoides perennis, Chondrillae folio, hispido, dentato, minor Act. Ac. Reg. Sc. 1721. Vaill. 46.

5. DENS Leonis foliis minimis hirsutis & asperis Inst. 469. Taraxaconoides perennis, hispida, Coronopi folio, Hieracium Dentis Leonis folio, hirsutiae asperum, minus C. B. Prod 63. Hieracium parvum, hirtum, caule aphylo, crispum, ubi ficcatum J. B. 2. 1038.

6. DENS Leonis foliis hirsutis & asperis H. R. Monsp. Taraxaconoides perennis & vulgaris Act. Ac. Reg. Sc. 1721. Dens Leonis, hirsutus, montanus, saxatilis, calyce longiore, nigricante Hist. Ox. 3. 76. Hieracium caule aphylo, hirsutum J. B. 2. l. 24. p. 1037. Raii Hist. 1. 245. *Rough Dandelion, commonly called Dandelion-Hawkweed. It flowers in May, and is common in meadows.*

DENTARIA heptaphyllos baccifera C. B. Pin. 322.

DIGI-

DIGITALIS purpurea J. B. 2. 812. Digitalis purpurea, folio aspero C. B. Pin. 243. Digitalis Dod. Pempt. 169. *Purple Fox-glove.* This plant, though common in most parts of England, is not found throughout the whole county of Cambridge.

TRAGUS seems not to have distinguished the red from the yellow Fox-glove, except by the colour of it's flowers: nevertheless they differ very much in their leaves. It is strange that *C. Bauhin* should say, that the leaves of this species are rough, they are, on the contrary, very smooth.

THIS plant is esteemed a vulnerary. *Gesner* * relates, that in *Bolonia* they call it *Aralda*, and have a proverb, *Aralda chi tutte piage salda*. *Parkinson* gives it for a specifick against the epilepsy. He says, that two handfuls of it must be boiled with four ounces of Polypody in a quart of beer. He bruised it, and applied it with success to scrophulous tumors. The ointment of Fox-glove is very resolvent. *Lobel* says the decoction of it purges powerfully, both upwards and downwards.

2. DIGITALIS flore magno, candido J. B. 3. 813. Digitalis alba, folio aspero C. B. Pin. 244. Digitalis 11. Dod. Pempt. 169.

THIS differs from the preceding only in the colour of it's flower. *Lobel* has given a

* Gesn. Hort. Germ. 256.

forry figure of it; for beside the representing the flowers too small, the leaves are expressed in it, without any indentation.

3. *DIGITALIS* major, lutea, vel pallida, parvo flore C. B. Pin. 244. *Digitalis* flore minore, subluteo, angustiore folio J. B. 2. 814. *Digitalis* lutea, parva Lob. Icon. 573.

1. *DIGITELLUS clavatus croceus*. *Clavaria militaris*, crocea. Vaill. 39.

2. *DIGITELLUS clavatus albus*. *Clavaria alba*, pistilli forma. Vaill. 39.

3. *DIGITELLUS clavatus, ophioglossoides, niger*. *Clavaria ophioglossoides, nigra*. Vaill. 39.

ON grassy ant-hills, in a close next Hample-wood; and at Comb-park, in the way to Kingston. Mer. Pin.

4. *DIGITELLUS coralliformis, luteus, minus ramosus*. *Coralloides flava* Inft. 564. *Fungus ramosus flavus* J. B. 3. 837. It has been found on Marlborough-downs in great plenty, by Mr. Wilmer, apothecary of London. I have seen it on the hill of Health, and many other places about Cambridge.

5. *DIGITELLUS coralliformis, albidus, minus ramosus*. *Coralloides albida* Inft. 564. *Fungus ramosus, albidus* J. B. 3. 837.

J. BAUHIN thinks, that we must not only refer to this species the *Fungus ramosus* C. B. Pin. & Imperati, but also the *Fungus digitatus major*, and the *Fungus candidus*, *digitatus*

tatus minor C. B. Pin. * *Caesalpinus* allows, that the Mushrooms, which he calls *Digitelli seu Maninae*, differ only in bigness. It differs from the preceding only in colour.

6. *DIGITELLUS coralliformis, candidissimus minus ramosus*. Corallo-fungus candidissimus. *Vaill.* 41.

7. *DIGITELLUS coralliformis dilute purpurascens*. Coralloides dilute purpurascens *Inst.* 564. xix generis, esculentorum fungorum 2 species *Clus. Hist.* cclxxv.

8. *DIGITELLUS major nigricans*, *Hypoxylon excrementum ligni putridi fungosum, digitatum* March Brand. *Mentz. pug. tab.* 6. *On rotten wood in many places.*

9. *DIGITELLUS ramosus, niger, summitatibus pulvere albido obductis*. Corallo-fungus digitatus, niger, apicibus albidis. *Vaill.* 41. *This was found on a rotten tree in Moor-barns thicket, by Mr. Halfhyde, apothecary of Cambridge.*

10. *DIGITELLUS croceus, Ornithopodioides*. Corallo-fungus croceus, *Ornithopodioides*. *Vaill.* 41.

11. *DIGITELLUS niger, compressus, varie divaricatus & implexus inter lignum & corticem*. Corallo-fungus niger, compressus, &c. *Vaill.* 41. *This was found in S. James's-Park by Mr. Doody.*

* *Caesalp.* 620.

1. *DIPSACUS sylvestris*, aut *Virga Pastoris*, major C. B. Pin. 385. *Dipsacus sylvestris* five *Labrum Veneris* J. B. 3. 74. *Dipsacus sylvestris* Dod. Pempt. 735. *Wild Teasel*.
In waste places.

DODONAEUS's comparison of it's seed with that of Fennel is not very just: * *Caesalpinus* has not distinguished this species well enough from that called, *Dipsacus sativus*, or Manured-Teasel. He believes they differ only in the bigness of their heads; but it is certain, that of the wild one has its points soft and erect, whereas those of the manured sort are hooked.

THE florets are half an inch long, white, blueish, having four chives, which sustain blueish summits. The crown of embryos is square, as is that also of the following.
Vaill.

2. *DIPSACUS sylvestris capitulo minore vel Virga pastoris minor* C. B. Pin. 385, *Small wild Teasel or Shepherd's-Rod*. By high-way sides and in hedges. I have found it in great plenty on the Tunbridge road, between Newcross and Lewisham; and by the road side between Highgate and Finchley, just beyond the sign of the flower-de-luce. It grows also in Trinity-college walks at Cambridge, and in many other places.

* *Caesalp.* 519.

DORONICUM Plantaginis folio C. B. Pin. 184. Doronicum folio fere Plantaginis oblongo J. B. 3. 18. Doronicum minus officinarum Lob. Icon. 648.

WE have no good figure of this plant: in *Lobel's* the leaves are too narrow, and the flowers, feeds, and roots are ill represented. Here follows an entire description of it.

It's roots, especially those which are old, are tubercles of about an inch in length, and about seven or eight lines broad, vaulted on the back, raised with some semi-circular ridges, like little scales; these tubercles may be compared for shape to a scorpion, for they are accompanied at each rib with two or three pair of rugged, and, as it were, scaly pairs of fibres, two or three lines thick, ending in a point, pretty like the claws of a scorpion: the tail is represented by a long fibre, which, however, is not crooked, but creeps and serves to multiply the plant. The part opposite to the tail prolongs itself after the manner of a scaly neck, which sustains a little root, much like the first: below these roots grow fibres more or less small, three or four inches long, not very capillary: these roots are fleshy, of a dirty white colour, sweet at first like liquorice, but afterwards leaving a little bitterness. The leaves usually proceed from the young tubercles, their pedicle is white, three or four lines broad, hairy, then contracted to two lines,

Q 4

lines, furrowed, pale-green, rounded and angular at the back. These leaves are like those of the common Plantain, veined in like manner, insipid, mixed with a little acrimony, four inches long, and three broad, soft, pale-green, scattered with very short hairs, and having the edges waved and lightly notched. The stalks are about two foot high, two or three lines thick, channelled, hollow, hairy, accompanied with some alternate leaves, pretty distant one from another. These leaves encompass them with two wings like ears, whereas the under ones have no ears at all; the leaves of the stalks are usually cut like a heart on each side, the last are very narrow and pointed. Each stalk sustains a yellow flower, two inches in diameter; the disk is convex, eight or nine lines broad, composed of several florets three lines high, fistular, cut like a star with five points: they send from their bottom a forked thred, the horns of which are crooked, and appear out of a channelled sheath: the ray of this flower consists of semiflorets about nine lines long, and a line and half broad, blunt and notched at the end. From their base also, which is fistular, arises a little, forked thred: each of the florets and semiflorets sits upon a greenish embryo, which afterwards becomes a channelled, blackish seed, one line long, adorned with a whitish down, two lines and half long.

M. VAILLANT adds, that the down consists of hairs.

ECHINOPUS major J. B. 3. 69. Carduus sphaerocephalus latifolius, vulgaris C. B. Pin. 381. Carduus sphaerocephalus Dod. Pempt. 722. Vaill. 48.

ECHIUM vulgare C. B. Pin. 154. J. B. 3. 586. Echium Dod. Pempt. 631. Vipers Bugloss.

By path sides, on walls and barren places. In Cambridgeshire it is the common pest of their corn. They observe that it appears in such plenty every third year, that their corn-fields appear at a distance entirely blue. They call it Cat's-tail.

J. BAUHIN has observed, first, that * Fuchsius has described and engraved the Buglossum sylvestre minus for the Echium, and that he has given the figure of the Echium for that of the Cynoglossum: it is surprising that the same author should have put the flowers of the Cynoglossum upon the figure of the Echium; perhaps he was deceived by Tragus's figure. Secondly, J. Bauhin has observed also, that § Dodonaeus has confounded the Echium with the common Hound's-Tongue; for he affirms, that it's stalk is rough and rugged: besides, he has made use of a sorry figure, copied after that of Fuchsius. Thirdly,

* Fuchf. Hist. 268.

§ Dod. Gal. 1.

That the two figures which *Lobel* has given, represent our *Echium*, though he has called one *Lycopsis altera, Anglica*, and the other *Echium sive Buglossum sylvestre*. Fourthly, That this plant is engraved three times in the *Hist. * Lugd.* where it is called *Echium Matthioli*, *Onosma Matthioli*, and *Cynoglossum Matthioli*; he might have added, that it was found a fourth time under the name of *Lycopsis anglica Lobelii*. *J. Bauhin* suspects the *Eckion* of *§ Caesalpinus* to be the same with that of which we are speaking; but *C. Bauhin* has, with more reason, referred *Caesalpinus's* plant to the *Lycopsis Pin.* which is the *Lycopsis, vel Lycapsis degener, Anchusa Aeginetae, Matthioli Cynoglossum*, which *Pena* and *Lobel* observed near *Frontignan*, and which the authors of the catalogues of the royal garden at *Paris*, and that at *Blois*, have called *Lycopsis Monspeliaca floribus dilute purpureis*. However *C. Bauhin* was deceived by the memoirs of *Pena* and *Lobel*, who affirm that the *Lycopsis* which they observed at *Frontignan*, is the same which they observed to grow in *England*, on the road from *Bristol* to *London*. *Mr. Ray*, and all the skilful *English* botanists, agree, that *Lobel* has confounded the common *Echium*, with the *Lycopsis* of *Languedoc*.

* Lugd. 1105, 1207, 1262.

§ 1263.

I. ELA-

I. ELATINE folio subrotundo C. B. Pin. 252. *Linaria segetum*, *Nummulariae folio villoso* Inst. 169. *Elatine mas*, folio subrotundo J. B. 3. 372. *Veronica foemina* Fuch-
fiii, five *Elatine* Dod. Pempt. 42. *Round-leaved female Fluellin*. In corn fields.

THE flowers of this plant are no where well represented; it's leaves are very bitter, a little stiptick, and have a smell a little oily; they hardly give any tincture of red to the blue paper, whence we may conjecture, their salt very much resembles the natural salt in the earth, being joined with a great deal of sulphur and terrestrial parts. This plant is vulnerary, sweetening, and deterfive; it cleanses the blood, and is restorative: *Caesalpinus* esteemed it for scrophulous tumours, and the leprosy. *Pena* and *Lobel* relate, that a barber cured by it a carcinomatous ulcer in the nose of a certain person, so eat away, that several physicians advised to cut it off. Three ounces of the juice, or six ounces of the water of this plant, distilled in *Balneo Mariae*, drank twice a day, is good for the cancer, gout, tetters, leprosy, and dropsey. There may be a tincture drawn from it with spirit of wine, and an extract of it prepared, the dose of which is a dram. The following ointment is good for ulcers, the piles, the king's evil, and for all the diseases of the skin: macerate the leaves of this plant for twenty-four hours, in as much white-

white-wine as is sufficient to cover them; squeeze out the juice, and boil it to the consumption of one third, and add as much lard as will give it the consistence of ointment.

2. ELATINE folio acuminato, in basi auriculato flore luteo C. B. Pin. 253. *Linaria segetum Nummulariae folio; aurito & villoso* Inst. 169. *Elatine foemina, folio anguloso* J. B. 3. 372. *Elatine altera* Dod. Pempt. 42. *Sharp-pointed Fluellin. With the former; but much more common.*

3. ELATINE folio acuminato, flore caeruleo C. B. Pin. 253. *Linaria segetum, folio Nummulariae aurito & villoso, flore caeruleo* Inst. 169.

4. ELATINE hederaceo folio, glabro, five *Cymbalaria vulgaris*. *Linaria hederaceo folio, glabro, five Cymbalaria vulgaris* Inst. *On the walls of the botanick garden at Chelsea, and about Battersey. On the walls of the great house at Drayton in Cambridgehire, and many other places.*

ELICHRYSUM montanum, flore rotundiore sub-purpureo Inst. 453. *Pilosella major quidam, aliis Gnaphalii genus* J. B. 3. 162. *Gnaphalium montanum, flore rotundiore* C. B. Pin. 263. *Gnaphalium montanum, suave-rubens* Lob. Icon. 483. *Mountain Cudweed or Cat's-foot.*

IN great plenty mixed with the white, on a great mountainous place, on the left hand of the way, as one goes from *Pontfract* to *Wem-*

Wemblersley, and almost directly opposite to *Stapleton* town on the right hand. *Mer. Pin.* On *Newmarket-beath*, not far from *Bottesham-beacon*, plentifully: also on *Bernak-beath* in *Lincolnshire*, *Ingleborough-hill* in *Yorkshire*, *Plimlimmon* in *Wales*, and many other places. *R. Syn. Ed.* 3. 181. On *Gogmagog-hills*.

It is to this species, which has the flower pretty large and round, that we must refer *Lobel's* figure, and not to that, which has it long and narrow, as *C. Baubin* has done.

2. *ELICHRYSUM montanum* flore rotundiore, candido *Inst.* 453. *Gnaphalium montanum*, flore rotundiore, candido *C. B. Pin.* 263. *Pilosella major* quibusdam, aliis *Gnaphalii* genus, floribus candidis *J. B.* 3. 162.

IN *Scosby-leas* near *Doncaster*, and *Shirwood-forest*, and on the *Welsh* mountains. *Mer. Pin.*

3. *ELICHRYSUM montanum* longiore & folio & flore purpureo *Inst.* 453. *Pilosella minor* quibusdam, aliis *Gnaphalii* genus *J. B.* 3. 162.

WE find the figure of this plant in *Lobel*, under a branch of the *Gnaphalium montanum*, *purpureum*; but it is too hairy, as *J. Baubin* has observed. *C. Baubin* has distinguished this plant not only by the flowers, but also by the leaves; he has called it *Gnaphalium montanum*, *longiore & folio & flore Pin.*

Dr. DILLENIIUS * *has observed, that the round and long flowered Cat's-foot differ in sex; the round being male, and the long female.*

4. ELICHRYSUM montanum, longiore & folio & flore albo Inf. 453. Gnaphalium montanum album Lob. Icon. 482. Pilella minor, quibusdam, aliis Gnaphalii genus, floribus candidis J. B. 3. 162. Gnaphalium montanum, longiore & folio & flore candido C. B. Pin. 263.

OUR author esteems these four, as only varieties of the same species; so that what follows may be applied to either of them.

THIS plant is vulnerary and astringent. *Du Renou* says, that they used to send from *Paris* to *Angers* and *Tours* for this plant, to make the syrup of it, till one *M. Gonet*, an apothecary of *Paris*, discovered a good deal of it about that city. This syrup is good for defluxions of the breast, especially when the patients complain of ferosities trickling down the throat and *bronchia*. The simple syrup is made of the Cat's-foot alone; it is called *Syrupus de Hispidula, seu Aeluropo, vulgo de pede cati*. The compound syrup is made of Barley-water, Jujubes, Raisins and Liquorice. *Schroder* adds *Sebestens*, Dates, Figs, Colt's-foot, Sage of *Jerusalem* and Spleenwort.

* Cat. Gifs. 60.

5. ELICHRYSUM spicatum Inst. 453. Gnaphalium rectum J. B. 3. 160. Gnaphalium majus angusto, oblongo folio, alterum C. B. Pin. 263. Gnaphalium Anglicum, vel Belgicum, folio longiore Lob. Icon. 482. *Long-leaved upright Cudweed. In pastures in a sandy soil.*

WE must refer to this the plant, called by *Tragus*, *Sylvestris Helyochrysos*, and perhaps the *Gnaphalium vulgare majus Thal.*

6. ELICHRYSUM sylvestre, latifolium, capitulis conglobatis C. B. Pin. 264. Gnaphalium ad Staechadem citrinam accedens J. B. 3. 160. Chrysocome & Heliochrysos sylvestris Lob. Icon. 485.

LOBEL's figure would be very good, if the empalements of the flowers were described more distinctly: there is the same fault in that of *Tabernaemontanus*. I believe *Clusius* spoke of this plant under the name of *Gnaphalium Plateau II.* so that the *Gnaphalium majus, lato oblongo folio Pin.** ought not to be separated from this. It is difficult to know whether *Caesalpinus* spoke of our *Elichrysum*: § *Chrysocome quaedam in montibus* (says he) *nascitur pluribus capitulis in unum aggregatis.* However, if this author had carefully examined the species of this genus; he had not said that there are no flowers in

* Pin. 269.

§ Caesalp. 485.

their heads: *in cacuminibus ramulorum, singula capitula oblonga, squamosa, sine flore, sed squamis ad solem repressum aureis, semen abito in lanuginem.*

7. *ELICHRYSUM aquaticum, ramosum, minus, capitulis foliatis* Inst. 452. *Gnaphalium longifolium, humile ramosum, capitulis nigris* Raii Hist. 295. *Black-headed, long-leaved, low, branched Cudweed. Common in moist places.*

THIS plant is well described in Mr. Ray's history of Plants, he suspects it to be that named by C. Bauhin, *Gnaphalium medium*: *Dodonaeus's* figure of the *Filago minor* *, gives no very good representation of it; but it is very likely that *Dodonaeus* intended to speak of the same species with Mr. Ray: J. Bauhin has mentioned it under the name of § *Gnaphalio vulgari similis*, but his description of it is not over good.

ENTEROPHYTON vulgare. *Fucus tubulosus intestinorum forma* Inst. *Lactuca marina tubulosa* Raii. *Sea Chitterling. In deep ditches, chiefly near the sea.*

I TAKE this to be the same with that which M. Vaillant has called *Enteroides palustris*; and to which he has referred the *Fucus herbaceus, cavus, fluitans, ramosus* D. Doody Raii Hist. 3. 13.

* Dod. Pempt. 66.

§ J. B. 3. 159.

1. *EQUISETUM majus, aquaticum* J. B. 3.
729. *Equisetum palustre longioribus setis*
C. B. Pin. 15. *Hippuris Dioscoridis, Cauda*
equina Tabern. Icon. 251. *Great marsh or*
water Horse-tail. In wet places

It's leaves are composed of several joints, though *Matthiolus* has engraved them entire, as *J. Baubin* observes: the same fault is found in the figures of *Lobel* and *Dodonaeus*. *J. Baubin* believes (not without reason) that the *Equisetum palustre, brevioribus setis* Pin. and the *Equisetum foliis nudum, non ramosum, sive junceum* ἵππυρος ἄρυλλος, are but varieties of this species; for culture makes them entirely alike.

THE Horse-tail has an herby, saltish taste, it is deterfive, and gives hardly any tincture of red to the blue paper: it's salt seems to resemble that of coral; but it is mixed with a little *Sal Ammoniac* and sulphur: by the * chymical analysis, it affords several acid liquors, a little oil, a great deal of earth, no concreted volatile salt, but a little urinous spirit: it's fixed salt does not easily dissolve in the air, neither does it give an orange colour to the solution of corrosive sublimate.

ALL authors agree, that the Horse-tail is very vulnerary and astringent: it's decoction is prescribed for spitting of blood, the immo-

* Extract of the registers of the royal academy of sciences.

derate flux of the piles, *menfes*, and all sorts of hemorrhagies. *Tabernaemontanus* prescribes a dram of the powder of the root for spitting of blood: he mixed the powder of the whole plant in the food of consumptive persons, and gave two or three ounces of it's juice to those that had the dysentery. *Tragus* prescribed this juice to those that made bloody urine, or had ruptures; the same juice is very good for wounds and ulcers.

2. EQUISETUM palustre, brevioribus setis C. B. Pin. 15. Equisetum palustre Lob. Raii Hist. 1. 129. Lob. Ic. 795. *Vaill.* 48. *The lesser marsh Horse-tail. In boggy places.*

3. EQUISETUM pratense longissimis setis C. B. Pin. 16. Equisetum 11. Matth. 1027. Coda di Cavallo seconda Ejusd. Ital. 1081. Grande Queue de cheval Fuchf. ch. cxxi.

BETWIXT *Wandsworth* and *Wimbleton*, in the mid-way in the meadows, *Mer. Pin.*

4. EQUISETUM palustre majus Tabern. Icon. 257.

WE have no better figure than that of *Tabernaemontanus*, to express this great species of *Horse-tail*.

THE stalk is two foot high, and two lines thick; it has no branches, but it is a little less garnished with leaves than this author's figure represents it: these leaves are but the third part of a line thick, they are articulated like those of the other species; they are four, and sometimes six-cornered; it's stalk be-
comes

comes slender when cultivated in gardens: so that perhaps *J. Baubin* was in the right, when he believed that the *Equisetum pratense longissimis setis* C. B. Pin. was the same with the *Equisetum arvense, longioribus setis* C. B. Pin. * *J. Baubin*, however, who calls it *Equisetum terrestre minus*, has described it very ill, and given but a sorry figure of it.

It bears it's flowers at the extremity of it's stalks. *Vaill.*

5. *EQUISETUM arvense longioribus setis* C. B. Pin. 16. *Raii Hist.* 1. 128. desc. *Petite Queue de Cheval.* *Fuchf. ch. cxxi.* *Equisetum minus* *Dod. Gall.* 76. *Vaill.* 48. *Corn Horse-tail.* On ditch banks, and amongst the corn in moist grounds.

It bears it's flowers, or *Asparagi*, separate from the stalks, which bear the leaves. They appear in *April* and *May.* *Vaill.*

6. *EQUISETUM foliis nudum, ramosum* C. B. Pin. 16. *Hippuris nuda, Equisetum nudum* *Tabern. Icon.* 251. *Vaill.* 49. *Branch-ed naked Horse-tail.* In *Bocking* river plentifully. *R. Syn. Ed.* 3. 132.

It flowers in *May*, and bears it's flowers at the extremities of the stalks, which are very smooth, and not at all channelled. *Vaill.*

7. *EQUISETUM foliis nudum, non ramosum, sive junceum, ἵππευς ἀφύλλου* C. B. Pin. 16. *Naked Horse-tail.*

* J. B. 3. 730.

IT bears it's flowers at the extremities of the stalks, which are channelled. *Vaill.*

THIS is used by artificers to polish, whence it is called Shave-grass. It is not common in England, Mr. Ray mentions it to grow at Middleton in Warwickshire, and Broad-stitch Abbey in Wiltshire.

8. EUISETUM nudum laevius nostras Raii Hist. 3. 103. *Vaill.* 49. Smooth, naked Horse-tail, or Snake-pipe. It is common on the banks of rivers, and in marshy places. Many of the fens are full of it.

I TAKE it to be the fourth young *Vaill.*

1. ERICA vulgaris, glabra C. B. Pin. 485. Erica vulgaris, humilis, semper virens, flore purpureo J. B. 1. 354. Erica 1. Matth. 152. Common Heath or Ling. On heaths and in woods.

MATTHIOLUS's figure of this plant, is better than those of any other author's. *Clusius* and *J. Baubin* took the flower to be tetrapetalous, whereas it is monopetalous; but the empalement of this species is often mistaken for the flower.

THE decoction of Heath is diuretick. *Clusius* affirms, that *Rondeletius*, the famous professor of physick at *Montpelier*, used the oil of it's flowers for the tetter with a great deal of success: *Tabernaemontanus* says, that it is a specifick for these sort of diseases, and that a fomentation with the flowers of Heath, eases the pain of the gout. For the same disease

disease they prepare a *Balneum vaporis*, with it's leaves and flowers.

The flower of this plant is of a very singular structure. It is a little bell prolonged and double. The outer one, which is the longest, is formed by four petals, encompassing the other, which seems to be monopetalous, open only at the fore part, and cut into four equal segments. The cavity of this inner one is filled with eight chives, disposed round a pointal, which does not exceed the thickness of a middling pin's-head, and is raised with eight rounded ribs, and surmounted by a style, terminated with a button, which usually juts out of the flower. These parts are sustained by a little empalement, like a cup, cut to the very base into four equal parts. This double flower is purple, as is also the style, but the chives are white. *Vaill.*

2. *ERICA vulgaris glabra*, flore albo C. B. Pin. 485. *Erica alba* Tabern. Icon. 1111. *Erica candida* Trag. 952.

THIS is only a variety of the first.

3. *ERICA Myricae folio hirsuta* C. B. Pin. 485. *Erica Myricae folio, tomentosis & incanis foliis* Clusio J. B. 1. 355. *Erica foliis tomentosis & incanis* Clus. Hist. 41. *Common rough-leaved Heath.*

Mr. RAY took this to be only a variety of the first.

Mr. DOODY was of another opinion, and thought it to be a different species, because he had observed it in great plenty on Bagshot-heath and Red-hill, for six or eight miles together, with hardly any other kind intermixed with it.

4. ERICA humilis, cortice cinereo, Arbuti flore C. B. Pin. 486. Erica ramulis tenuis, floribus faturioribus, purpureis J. B. 1. 357. Erica Coris folio vi. Clus. Hist. 43. *Fine-leaved Heath.*

WE must refer to this species, the plant which *Caesalpinus* has called *Scopa*, and not range it under the *Erica hirsuta Anglica*, as *C. Bauhin* has done: for besides that it is not commonly found in the warmer countries, such as *Italy*, where *Caesalpinus* wrote, that author compares it's leaves to those of the *Tamarisk*, which are smooth like those of the *Heath* of which we are speaking; whereas those of the *Erica hirsuta, Anglica*, which is common in all the northern countries, are covered with stiff hairs.

CLUSIUS had observed about *Paris*, the *Erica humilis, cortice cinereo, Arbuti flore Pin.*

5. ERICA humilis, cortice cinereo, Arbuti flore albo H. R. Par.

I HAVE seen this variety on the mountains near Hathersedge in the Peak of Derbyshire.

6. ERICA Brabantica folio Coris, hirsuto, quaterno J. B. 1. 358. Erica ex rubro nigricans

nigricans scoparia 7. C. B. Pin. 406. Inf. 342. *Vaill.* 49. *Low-Dutch Heath or Beesom Heath.* It delights chiefly in boggy places. It is not mentioned in the *Cat. Cant.* I have found it however in the bogs near Gamlingay.

7. *ERICA* major scoparia, foliis deciduis C. B. Pin. 485.

ERINACEUS coloris pallide lutei Dillen. *Cat. Gifs.* 188. *Fungus Erinaceus.* *Vaill.* 58.

IN a wood near Middleton in Warwickshire. *R. Syn. Ed.* 3. p. 11. I have found it in Tottenham-wood in December, and near Lewsham, about the end of October.

THE Character of this Family is, to have the head set with prickles underneath.

1. *ERUCA* tenuifolia, perennis, flore luteo J. B. 2. 861. *Wild Rocket.* Common on walls about London and Westminster.

It is strange we should have none but wretched figures of a plant so common as this; I cannot tell why *C. Baubin* has called it * *Eruca sylvestris*, major, lutea, caule aspero: It's stalk is sometimes covered with little hairs, but one can call it neither rough nor rugged. We must refer hither the *Eruca altera*, fruticosa *Caesalp.* § as *J. Baubin* has done, and not the *Erucae quoddam genus*, sponte nascens, floribus albis *Caesalp.* as it is in the *Pinax.* This plant is of a taste alto-

* Pin. 98.

§ *Caesalp.* 360.

gether acrid and burning; mixed, at last, with a little bitterness; it gives a pretty deep tincture of red to the blue paper, and it's smell resembles that of foetid oils rectified over quick lime, which makes us believe that it contains a salt very acrid, which in some measure resembles the *Sal Ammoniac*, mixed with a great deal of foetid oil and earth.

THUS it is no wonder that the plant, of which we are speaking, should be aperitive, incisive, and diuretick. *Matthiolus* affirms, that being boiled with a little sugar, it is good for the cough in children, which is generally occasioned by glutinous matters, irritated in the bronchia and vesicles of the lungs.

THE petals are entire and equal, the em-palement expanded. The pods are an inch and half long, three quarters of a line, or a line in diameter. The seeds are brown, oval, small, and marked on one side with a furrow, which runs from one end to the other. *Vaill.*

2. *ERUCA sylvestris, minor, lutea, Bursae pastoris folio* C. B. Prod. 39. Pin. 98. *Eruca minimo flore, Monspeliensis* J. B. 2. 862. *Eruca Sicula, Bursae pastoris folio* Boc. 18. *Jagged yellow Rocket of the isle of Man.*

BETWEEN the landing place at *Ramsay* and the town plentifully. In *Sella-field, Seabank, Cumberland*; also between *Marsh-grainge* and the

the isle of *Walney*, but not plentifully. Near *Abermeney-ferry* in *Anglesea*. *Syn. Stirp. Brit. Ed. 3.* 297.

3. *ERUCA sylvestris*, major, lutea, caule aspero C. B. Pin. 98.

THE figure of the *Eruca sylvestris*, given by *Matthiolus* *, represents pretty well this species of Rocket. Being cultivated in the royal garden at *Paris*, it has always kept itself distinct from the first, by it's leaves and hairy stalks, which render it rough to the touch. *Juss. 34.*

4. *ERUCA procumbens*, alba, filiquis singularibus, in foliorum alis *Juss. 2.* 344.

ERVUM verum Cam. Hort.

ERYNGIUM vulgare C. B. Pin. 386. J. B.

3. 85. *Eryngium campestre* Dod. Pempt. 730. *Common Eryngo. Near the sea.*

CAESALPINUS says, there is no discovering any flower upon this plant: *Dodonaeus* affirms it's flower to be blue, and seldom yellow: for my part, I have observed it to consist of five whitish petals.

ONE finds some acrimony in the *Eryngo* upon chewing it: it's leaves give a faint red colour to the blue paper; it's roots give it a deeper; so that it is likely that their salt, in some measure, resembles the *Sal Ammoniac*, but that it is joined with some sulphur and terrestrial substances.

* *Eruc. Valgrif. pag. 531.*

THERE is an indifferent quantity of concreted volatile salt, and a great deal of oil and earth obtained from this plant by the chymical analysis.

I. *ERYSIMUM vulgare* C. B. Pin. 100. *Erysimum Tragi*, flosculis luteis, juxta muros proveniens J. B. 2. 163. *Erysimum Irio* 1. Tabern. Icon. 448. *Hedge-Mustard*.

THE *Irio* of *Matthiolum* is the *Sinapi arvense praecox*, *semine nigro* Mor. * and not the *Erysimum vulgare*, as C. *Baubin* believed. *J. Baubin* was more in the right; for he thought *Matthiolum*'s figure to be monstrous.

OUR *Hedge-Mustard* has an herby taste, a little saltish and glutinous. It gives a pretty deep red colour to the blue paper, which gives us reason to believe that it contains a salt resembling the *Sal Ammoniac*, tempered with flegm, sulphur, and earth; thus the *Hedge-Mustard* is proper for all the diseases of the lungs, where a condensed lymph is to be dissolved, which adheres to the *Bronchiae*, and vesicles, as it often happens in old coughs, and in an asthma: they prescribe a handful of it in cock-broth: they macerate cold in water this plant hashed coarse: the syrup made with the juice is very good: the syrup described in *Rondeletius*'s dispensatory, printed in the memoirs of *Pena*

* Hist. 621.

and *Lobel*, and published in 1605, is too compound.

2. *ERYSIMUM* foliis subincanis, siliquis brevissimis Par. Bat.

3. *ERYSIMUM* latifolium, majus, glabrum C. B. Pin. 101. Sinapi sylvestre, Monspefulanum, lato folio, flosculo luteo minimo, siliquâ longissimâ J. B. 2. 858. Irio Apulus alter, laevis Erucae folio, Col. part. 1. 265. *Smoother, broad-leaved Hedge-Mustard. Common about London.*

THE figure which *Columna* has given is good. Some make the syrup of *Erysimum* with the juice of this species.

EUONYMUS vulgaris, granis rubentibus C. B. Pin. 428. *Euonymus* multis, aliis *Tetragonia* J. B. 1. 201. *Euonymus* Dod. Pempt. 783. *Spindle-tree or Prickwood. In hedges.*

THEY say it's fruit purges both upwards and downwards: the peasants make use of the powder of it's fruit to kill lice; or else wash their hair with the decoction of it's seeds.

EUPATORIUM cannabinum C. B. Pin. 320. *Eupatorium* adulterinum J. B. 2. 1065. *Vulgare Hepatorium* Dod. Pempt. 28. *Common Hemp-Agrimony or Dutch Agrimony. On ditch banks.*

Two ounces of the juice of the leaves of this plant, or a dram of it's extract, and a ptisan of it, drank by glass-fulls, are very good

good for the obstructions of the bowels, especially those which succeed intermitting fevers, in which the blood is very much deprived of it's natural balsam. A tea or broth of it's leaves, given after the legs have been bathed with a decoction of the whole plant, affords great ease in the dropfy. For the green-sicknefs, itch, and other cutaneous diseases, it is mixed with Fumitory in whey, broths and ptisans: the tops charged with flowers are very vulnerary; the roots purge considerably both upwards and downwards: this experience *Gesner* himself had of it *; *Eupatorii aquatici vel Avicennae quorundam radicis fibras in vino nuper decoxi, bibi colatum, unde per horam post, alvus, urinaque copiose motae sunt, & vomitus; postea duodecies fere, pituita quamplurimum evacuata, multo tutius & facilius quam ab Helleboro fiat.*

THE leaves of this plant are very bitter, and do not stain the blue paper: it is probably endowed with the natural salt of the earth, without hardly any other alteration, than being united with a great deal of sulphur and earth.

I FOUND, some years ago, a remarkable variety of this plant, with simple leaves; but have forgot the place. It was found afterwards, by *Dr. Dillenius*, before you come to Lee, in the road to Eltham.

* *Gesn. Epist. pag. 63.*

1. EUPHRASIA *officinarum* C. B. Pin. 233.
Euphrasia Dod. *Pempt.* 54. *J. B.* 3. 432.
Eye-bright. In meadows.

It is very bitter, and gives a faint tincture of red to the blue paper; which makes us conjecture that the *Sal Ammoniac*, though involved in a great deal of oil and earth, may predominate in this plant. It dissolves the humours, disposes them to circulate, and carry off the obstructing particles: every body agrees that it clears, strengthens, and even restores the sight: the powder is given from one dram to three, in a glass of *Fennel* or *Vervain* water. The use of the conserve alone, or mixed with Wormwood leaves, continued for a long time, is good for the same purposes: *Arnaldus de Villanova*, in his treatise concerning medicinal wines, very much commends that of Eye-bright: in vintage time they put this plant in the must, and drink it when it is well clarified. *Pena* and *Lobel* prefer the use of the powder to the wine. They affirm, that one of their friends in *Switzerland*, who had but a slight defluxion in his eyes, had like to have lost his sight by drinking Eye-bright wine for three months.

2. EUPHRASIA *ramosa*, *pratensis*, flore albo Eyst.

1. FABA minor, sive equina C. B. Pin. 338.
Field-Beans or *Horse-Beans*.

2. FABA

2. *FABA major vulgaris* Adv. Lob. *Garden Beans.* Both these are frequently sown in the open fields.

1. *FAGOPYRUM vulgare, erectum* Inst. 511. *Erysimum Theophrasti folio hederaceo* C. B. Pin. 27. *Fagotriticum* J. B. 2. 993. *Erysimum Theophrasti* Lob. Icon. 63. *Buck-wheat* or *Brank.* Sown in the fields.

NOTHING has been found better to keep green-houses (for preserving plants all winter) dry, than the bran of Buck-wheat: these green-houses must be wainscoted in such a manner, that there may remain a space of two or three inches between the wainscot and the walls, and this space must be carefully filled with Buck-wheat bran.

2. *FAGOPYRUM vulgare, scandens* Inst. 511. *Convolvulus minor, femine triangulo* C. B. Pin. 295. *Helxine cissampelos altera, Atriplicis effigie* Lob. Icon. 624. *Helxine femine triangulo* J. B. 2. 157. *Black-Bind-weed.* Amongst the corn.

Mr. RAY took the flower of this plant to be hexapetalous, though he has classed it among the plants which have apetalous flowers. I do not think they can be called petalous, because these parts, which might be taken for the petals, become the covering of the seed.

FAGUS Dod. Pempt. 832. *Fagus Latinorum, Oxya Graecorum* J. B. i. 117. *The Beech-tree.*

IN woods, especially in Buckinghamshire, which takes it's name from the great quantities

tities of these trees: Bucken being the Saxon name for Beech-trees. Caesar had not penetrated so far into England; otherwise he would not have related that we have no Beech.

J. BAUHIN is not of the same opinion with *Tragus* and *Schwenchfeltius*, who took the catkins for the flower of this tree. The first of these authors would have the little threds of the Beech-tree, fastened to the young fruit, be called it's flowers; but I believe he must not be followed in this point: I have caused these parts to be engraved in the * *Elemens de Botanique*: the figure A represents the flowers of which the catkins D are composed, and E shews a young fruit garnished with it's threds. *Tragus* affirms, he has cured scabs, itch, tetters, and other itchings of the skin, with the water found in the clefts of old Beech-trees.

FERRUM equinum, Germanicum, filiquis in summitate C. B. Pin. 349. Ornithopodio affinis, vel potius soleae, vel ferro equino herba J. B. 2. 348. Ferrum equinum capitatum Col. part. 1. 301. *Tufted Horse-shoe Vetch.*

IN the chalky grounds about Cambridge plentifully.

COLUMNA's figure and description of this plant are good: there is some difficulty to understand the figure of the *Hedysarum minus* § *Tabern.* because the fruits are wanting:

* Tab. 351.

§ *Tabern. Icon.* 516.

they are very ill represented in that of *J. Bauhin*, who observes that *Camerarius* had confounded this species with that which *C. Bauhin* has called *Ferrum equinum, siliquâ singulari*. * *Camerarius* has certainly engraved these two species in the same table, and placed the cods of the last upon the cods of this.

1. *FILAGO* seu *Impia* Dod. Pempt. 66. *Gnaphalium vulgare, majus* C. B. Pin. 263. *Gnaphalium Germanicum* J. B. 3. 158. *Common Cudweed. In waste places.*

DODONAEUS mightily commends the distilled water of this plant for the cancer in the breasts; by applying once a day pledgets and compresses soaked in it. *Lobel* says the infusion of this plant in oil of olives, makes a very good balsam for wounds and contusions.

2. *FILAGO vulgaris, floribus per caulem sparsis* Inst. 454. *Filago altera* Dod. Pempt. 67. *Gnaphalium majus, angusto, oblongo folio* C. B. Pin. 263. *Long-leaved, upright Cudweed. With the former.*

THIS species is not distinguished from the preceding, but by the disposition of it's flowers growing out of the bosoms of the leaves: the flowers grow generally all on the same side; sometimes single, often two or three together: of a conical figure. The

* Cam. Epit. 642.

preceding grow in clusters pretty round, and their empalement is cut into five segments: I look upon *Dodonaeus* as the only person that has described this plant. *Filaginis alia species* (says he) *cauliculis, foliisque incanis, mollibus ac lanuginosis, priori similis; verum flores non in cacuminibus, sed secundum cauliculos, ordine dispositi pone folia exeunt, priori similes, qui & in pappos solvuntur.* C. Bauhin did not know of it; for he says we may refer it, if we will, to the eleventh or twelfth species of *Gnaphalium*, which he mentions: however, these two plants are so different, that one is a species of *Filago*, and the other of *Helichrysum*: thus we must refer to the eleventh species of *Gnaphalium* of this author, the synonymy of *Tragus*, and perhaps the *Varietas Gnaphalii Germanici majoris, & secundum alas floridi* of *Pena** and *Lobel*; for the figure is a very sorry one, and agrees neither with the title nor description. Perhaps these authors have not well distinguished it from that which they have called *Gnaphalium Anglicum, folio longiore, perperam Leontopodium alterum Matthioli*: the figure of the *Gnaphalium minimum* J. B. which is taken out of *Lobel*, represents well enough the species of *Filago*, of which we are speaking; but the description does not agree with it.

* Adv. 201.

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3. FILAGO vulgaris, tenuissimo folio, erecta Inst. 454. Gnaphalium vulgare, tenuifolium J. B. 3. 159. and not Gnaphalio vulgari similis J. B. as I have put through mistake in the *Elemens de Botanique*.

THIS species is only described by J. Bauhin, *Lignescit radix* (says he) *multis fibris capillata, haud secus ac Gnaphalio Germanico; caules multi, dodrantes, ramosi, folia unciam longa, fili pene tenuitate, incondita, mollia, tomentosa, incana. Flosculi & capitula per caules disposita, ut in praedicto Gnaphalio, sed pauciora, minoraque.*

4. FILAGO minor Ger. emac. 641. *The least Cudweed. In sandy places.*

FILIPENDULA vulgaris, an Molon Plinii? C. B. Pin. 163. Filipendula J. B. 3. part. 2. 189. Dod. Pempt. 56. *Common Dropwort. In hilly pastures.*

FUCHSIUS has given a pretty good figure of this plant; but, let him say what he will, it cannot be the *Oenanthe* of *Dioscorides*. The leaves of the *Filipendula* are very different from those of the *Pastinaca*, and the seeds have no affinity with those of *Atriplex*. In J. Bauhin's history, the figure of the *Daucus pratensis*, *Millefolii palustris folio* Pin. is put instead of that of the *Filipendula*. The comparison, which this author has made of the seed, with that of Pimpernel, is not over just. Mr. Ray says, that the flower of the *Filipendula* has seven petals; I have

have observed it to have usually but six petals.

THE *Filipendula* is stiptick, sweet-smelling, glutinous, of a taste a little saltish, and gives a pretty deep red tincture to the blue paper. The root gives it a pretty strong one; it is stiptick and a little bitter. This plant contains a salt, approaching to that of Alum; but it is mixed with a great deal of sulphur; for by the * chymical analysis we obtain from it a great deal of acid, earth and oil. All the authors agree that it is very diuretick and aperitive. *Tabernaemontanus*, after *Silvaticus*, *Simon Januensis*, *Bayrus* and *Lobel* recommend it for the Epilepsy. *Simon Paulli* recommends the powder of the roots for the whites; and *Mercator* and *Prevotius* for the dysentery.

1. FILIX saxatilis, caule tenui fragili Raii Syn. Ed. 3. p. 125. *Fine-cut Stone-Fern, with slender and brittle stalks.*

ON old stone walls and rocks in the mountains of the Peak in *Derbyshire*, and in the West riding of *Yorkshire*, and in *Westmoreland* plentifully and on the dropping rock at *Knaresborough*, *R. Syn.* I have found it in plenty at the entrance into Peak's hole.

2. FILIX minor non ramosa J. B. 3. 740. *Filix minor, palustris* Raii Hist. 146. *Creep-*

* Extract of the registers of the royal academy of sciences.

ing *Water-Fern*, or the lesser *Marsh-Fern*. In watry places.

J. BAUHIN has given a sorry figure of this plant: it is no more than a copy of the *Filicula petraea foemina* III. Tabern. C. Baubin has called it *Filix saxatilis, foliis non serratis* Pin. but this name does not agree with it; for it grows in marshy places.

3. FILIX non ramosa, dentata C. B. Pin. 358. Filix vulgo mas dicta, five non ramosa J. B. 3. 737. Filix mas Dod. Pempt. 462. *Common Male-Fern. Common in shady places.*

4. FILIX mollis, five glabra, vulgari mari non ramosae accedens J. B. 3. 738. *Male-Fern with thin-set, deeply indented leaves. In moist and shady places.*

5. FILIX aculeata major C. B. Pin. 358. Filix mas, aculeata major C. B. Prodr. 151. Filix Lonchitidi affinis J. B. 3. 739. Lonchitis aculeata major Inst. 538. *Prickly, auriculate Male-fern.*

WE have no good figure of this plant; that of J. Baubin is good for nothing; but his description is better than that of C. Baubin.

1. FLUVIALIS Pisana foliis denticulatis J. B. 3. 799. Fucus fluviatilis, aculeatus, undatus Inst. 569.

2. FLUVIALIS foliis angustis, dentatis. Fluvialis species, angusto brevique folio undequaque spinis infesta H. Cath. 241. Raii H. 3. 132. Fluvialis species, folio angusto, ad
margines

margines denticulis spinosis inciso, Flagellum Christi dicta Raii H. 3. 121. Fluvialis angusto, brevique folio Act. Ac. Reg. Sc. 1719. Vaill. 54.

3. FLUVIALIS gramineo folio, polycarpus. Potamogiton similis, graminifolia, ramosa, ad genicula polyceratos Pluk. Almag. Tab. 162. Fig. 7. Algoides vulgaris Tab. 1. Fig. 1. Act. Ac. Reg. Sc. 1719. Potamogiton capillaceum, capitulis ad alas trifidis C. B. Pin. 193. Prod. 101. Raii Hist. 1. 190. Potamogiton affinis, graminifolia, aquatica Raii ibid. N. 13. Potamogiton omnium minimum, Graminis facie, capillaceum, filiculis curvulis, binis, ternis, dorso dentato H. Cath. Raii Hist. 3. 122. Equisetum polygonoides, aquis innatans, Potamogitonis tenuifoliae facie, ad genicula vasculiferum Hist. Oxon. 3. 621. N. 20. Vaill. 54. *In a pond near Pancras church, by the side of the road, and in many other watery places.*

1. FOENICULUM sylvestre, elatius, Ferulae folio longiori Inst. 311. Saxifraga Matthioli, tenuifolia & umbellifera J. B. 3. part. alt. 18.

J. BAUHIN was in the right to refer to this species, that which * *Pena* and *Lobel* have called *Saxifragia ferulacea Italarum*. *C. Bauhin* has referred thither the *Peucedani facie pusilla planta Lob.* §; but the name and figure

* Adv. 358.

§ Lob. Icon. 745.

of *Lobel* seem to agree better with the following. Mr. *Ray* is of opinion, that the *Peucedani facie pusilla planta*, which *Lobel* marks to grow about *Bristol*, is not different from the *Selinum montanum*, *pumilum Clus.* which *C. Baubin* has called *Daucus montanus*, *multifido folio*, *Selini semine Pin.* but I think they ought to be distinguished.

It flowers in *July* and *August*: it's petals are white and equal.

2. FOENICULUM sylvestre, perenne Ferulae folio breviori *Inf.* 311. Meum latifolium, adulterinum C. B. *Pin.* 148. Meum alterum, Italicum quibusdam J. B. 3. part. 2. 75. Spurium Meum alterum Italicum *Lob. Icon.* 778.

M. VAILLANT is of opinion, that this is only a variety of the preceding.

3. FOENICULUM annuum, umbella contracta, oblonga *Inf.* 311.

4. FOENICULUM minimum patulum *Inf.* 312. Daucus montanus, multifido folio, Selini semine C. B. *Pin.* 150. Selinum montanum pumilum *Clus. Hist. cc.*

This is much lower than the first, much more tufted: and it's leaves are slenderer and shorter.

5. FOENICULUM sylvestre, annuum, Tragofelini odore, umbella alba. *Vaill.* 54.

6. FOENICULUM vulgare, Germanicum C. B. *Pin.* 147. Common Fennel or Finckle. On the

the Banks of the Thames, between Greenwich and Woolwich.

1. FOENUM Graecum sativum C. B. Pin. 348. *Fenugreek.*

2. FOENUM Graecum sylvestre, alterum, polyceration C. B. Pin. 348. Securidacae genus triphyllum J. B. 2. 373. Hedyfarum minimum Lugd. 446.

THE *Hist. Lugd.* gives a very good figure of this plant; those of *Dodonaeus* and *Lobel* do not represent it so well.

FONTINALIS major, foliis triangularibus, complicatis, capitulis in foliorum alis, sessilibus *Dillen. Syn.* 79. Muscus squamosus, foliis acutissimis, in aquis nascens *Inst.* 554. *In the river Lee; in the Well at Coton, near Cambridge; and many other watery places.*

1. FRAGARIA vulgaris C. B. Pin. 326. *Common Strawberry. In woods and thickets.*

2. FRAGARIA sterilis C. B. Pin. 327. *Fragaria non fragifera, vel non vesca J. B. 2. 395. Fragaria sterilis, minime vesca, five sterilis Lob. Icon 698. Barren Strawberry. In barren pastures.*

3. FRAGARIA sterilis, incana, H. R. Par. FRANGULA Dod. Pempt. 784. *Alnus nigra, baccifera C. B. Pin. 428. J. B. 1. 560. The black berry-bearing Alder.*

IN thorny-holme in *Whinfield-forest, Westmoreland. R. Syn. Ed.* 3. 465. In the hedges between *Dunstable* and *St. Albans*; *Mr. Newton.* In *Cane-wood, Bishop's-wood, and*

Norwood, near *London*; and about *Gamlingay-park* in *Cambridgeshire*.

As the author of the *Hist. Lugd.* * has been quoted by *C. Baubin*, he seems to have given three figures of this plant; but there are no more than two: for as for the *Siler Plinii*, he only mentions, that some take it to be the plant of which we are speaking. § The flowers of the *Frangula* grow three or four together, in the bosoms of the leaves; each flower has five white, pointed petals, hardly a line long, and placed in the divisions of the empalement: this empalement is a greenish cup, two lines long, expanded, and cut into five whitish segments. From the base of each petal arises a very short chive, loaded with a summit. From the bottom of the empalement grows the pointal, which is almost round, smooth, terminated by a forked thred. This pointal afterwards becomes a fruit, green at first, and then black, soft, sweetish, almost round, two lines and half diameter, usually filled with two or three seeds, which are separately plunged in the pulp. Each seed is flat, about two lines long, reddish, almost oval, a little bunched, hard, with a whitish neck when fresh, divided internally into two lobes. It flowers in *June*, and the fruit is ripe in *August*.

* *Lugd.* 96.

§ *Elem. de Bot.* Tab. 383.

THE middle bark of the *Frangula* is a little bitter, glutinous, and gives a pretty deep red to the blue paper, the fruit changes it to a Violet. This bark purges by strengthening the bowels, and removing their obstructions. For the dropfy, cachexy, and jaundice, *Matthiolum* orders it to be boiled gently in a decoction of *Eupatorium*, Wormwood, Agrimony, Dodder, Hops, Fennel, Parsley, and the roots of Succory, and some Cinnamon. This bark must be gathered in the beginning of the spring, and dried in the shade. The green bark is emetick; and to prevent it, when dry, from creating a nausea, *Matthiolum* advises to keep the decoction two or three days, till the yellow colour of it be turned blackish. A dram of it must be infused in white-wine, with two drams of vegetable salt: or a dram of it may be put in warm water, with a scruple of Cinnamon, the same quantity of salt of Wormwood, and an ounce of the syrup of Peach blossoms, may be dissolved in the strained liquor. *Tragus* and *Dodonaeus* affirm, that the middle bark bruised with vinegar, is an infallible cure for the itch, and other diseases of the skin.

FRAXINUS excelsior C. B. Pin. 416. Fraxinus vulgator J. B. I. 174. Fraxinus Dod. Pempt. 833. *The common Ash-Tree. In woods and hedges.*

THE

THE leaves of this tree, by the * chymical analysis, yield a great many acid liquors, a little urinous spirit, no concreted volatile salt, a great deal of oil and earth, and a moderate quantity of fixed salt; by which the natural salt of this plant, seems to resemble that called by *Angelus Sala Oxysal diaphoreticum*: but in the Ash it is joined with a great deal of sulphur and earth; thus it is no wonder if it should be aperitive, diuretick, and sudorifick. *Tragus* says it's distilled water cures the jaundice and stone, and the decoction of it's leaves in wine removes the obstructions of the liver and spleen. *Simon Paulli* commends the use of the salt of the Ash, taken in *Carduus benedictus* water, mixed with a little syrup of Pomegranates or Rasberries, in the small-pox and meazles. *Caesalpinus* relates, that in his time, they used the wood of the Ash in decoctions, after the manner of that of Guaiacum; *Lobel* says also, that it is good also for the venereal disease: the ashes of it's bark make a good caustick: *Corticis radicis cinis* (says *Lobel*) *nodulo exceptus, cauterii potentialis supplet vicem madefactus & impositus, indeque foraminulum contractum reseratum, immisso Hederae folio fovetur.* He says, that

* Extract of the registers of the royal academy of sciences.

the perfume of it's leaves, bark or seed cures deafness: it is certainly resolving; and the very water which drops out of a fresh branch, that has the other end of it set on fire, has the same virtue: syringe it into the ear, and afterwards stop it with some cotton dipped in the same water. The bark of the root is prescribed for the dropsey, rheumatism, sciatica, and those diseases which require to have the superfluous serosities voided: this bark is an ingredient in the potions, broths, and apozems prescribed for the green-sickness: they add to these remedies, the tincture of steel, or chalybiated soluble Tartar.

FUCUS fontanus, pinguis, corniculatus, viridis. *Vaill.* 56.

I. FUMARIA Officinarum & Dioscoridis C. B. Pin. 143. Fumaria vulgaris J. B. 3. 201. Fumaria Dod. Pempt. 59. *Fumitory.*
In corn fields.

THIS plant gives the blue paper much such a red colour as the Aloës; so that probably it contains very near the same principles, viz. a salt like that which is natural in the earth; but in which the *Sal Ammoniac* predominates over the nitre, and marine salt: besides, the salt of the *Fumitory* is joined with a great deal of sulphur and earth, and dissolved in a considerable quantity of flegm.

By

* By the chymical analyfis, the *Fumitory* yields a great deal of concreted, volatile, fixed, lixivial falt, and very thick oil.

ALL these principles render this plant laxative, diuretick, good to cleanse the blood, and remove the obstructions of the parts: It passes for a specifick in all diseases of the skin, in the hypocondriack melancholy, in the cachexy and dropfy: they give the juice of *Fumitory* from two ounces to six; the infusion in whey, from six ounces to ten or twelve; the simple syrup to two or three ounces in ptisans; the compound syrup to one ounce or two, if you would have the patient be purged. The water also of *Fumitory* is deterfive, and good to dry up the ulcers of the mouth. An ointment is made of the juice of this plant, mixed with equal quantities of the juice of *Dock* and *Elecampane*, thickened over the fire with some hog's lard. The *Fumitory* is used in the electuary *de Psyllio*, in that which they call *Sennatum*, in the confection *Hamech*, and in the compound syrup of Succory.

2. FUMARIA foliis tenuissimis, floribus albis, circa Monspelim nascens C. B. Pin. 143.

3. FUMARIA major, scandens, foliorum pediculis, flore majore ac pallidiore Mor.

* Extract of the registers of the royal academy of sciences.

Hist. 261. *The greater ramping Fumitory.*
In the same places with the first.

THIS plant is the same with that which C. Baubin has marked to grow at *Montpelier* and *Frontignan*, along the hedges, and which he has called *Fumaria viticulis & capreolis plantis vicinis adhaerens* Pin. 143. We have no good figure of it. *Dodonaeus* *, whom C. Baubin has quoted, has given only the figure of the common Fumitory under the name of *Capnos Fumaria*, and that of the *Capnos Plinii phragmites*, which is the *Fumaria claviculis donata* Pin. as C. Baubin allows; hence this author could not separate from the common Fumitory, the *Fumaria phragmites Dodonaei* Lugd. § seeing the author of the *Hist. Lugd.* has only copied the figure of *Dodonaeus*.

4. FUMARIA minor, tenuifolia, cauliculis furrectis, flore hilari purpura rubente C. B. Pin. 143. *Capnos tenuifolia* Clus. Hist. ccviii. *Fumaria vulgaris, minor, tenuifolia* Mor. Hist. 261. III. *Fumaria tenuifolia* Tabern. Icon. 33.

MORISON distinguishes this species from that which the author of the *Hist. Lugd.* has named *Fumariae species Myconi*: he founds his distinction upon the seed, which is like that of flax; but these two plants have it

* Dod. Gal. 18.

§ Lugd. 1294.

entirely

entirely of the same shape: I am of opinion, that we must rather regard the colour of their flowers. The author of the *Hist. Lugd.* was in the right, when he said, that those of the *Fumarae species Myconi* were variegated.

5. FUMARIA segmentis foliorum longis, angustis & rarius dispositis Jusf. 2. 361.

GALE frutex odoratus Septentrionalium J. B. 1. p. 2. 225. Gaule, Sweet-Willow, Dutch Myrtle.

IN the fens of the isle of *Ely*; about *Wareham* in *Dorsetshire*; by the rivulet between *Shap* and *Anna-Well*, *Westmoreland*; and in many places of the *North*. R. Syn. Ed. 3. p. 443. On *Darlingham-Heath* in *Norfolk*.

It is a little shrub, of which there are two individuals, one bears the flower, and the other the fruit. It has a very sweet smell, and used formerly to be brought much to *Paris*, to give a good smell to linen. Jusf.

1. GALEOPSIS procerior, foetida, spicata Inst. 185. *Lanium maximum, sylvaticum foetidum* C. B. Pin. 231. Galeopsis, five *Urtica iners, magna, foetidissima* J. B. 3. App. 853. *Urtica Herculea* Tabern. Icon. 536. Hedge-Nettle. In hedges.

THE description of the *Galeopsis legitima, vel vera Dioscoridis* Clus. Hist. xxxvi. answers this species pretty well; but the figure rather represents the *Lanium purpureum vel album; non foetens folio oblongo* C. B. Pin. The

The plant, called by * the *Hist. Lugd. Sideritis alia*, is more like the *Lamium folio oblongo, luteum* C. B. Pin. than this, though C. Baubin suspects it to be the same.

THE *Galeopsis* smells of Bitumen or fetid oil; it has an herby taste, a little saltish, astringent, and does not stain the blue paper, which makes us conjecture that it's salt participates very much of the natural salt of the earth, which in this plant is involved in a great deal of sulphur and terrestrial parts.

It is vulnerary and very sweetening; an oil made of it by infusion, is excellent for burns, and for wounds of the tendinous parts: in the country they use successfully the infusion of it's leaves and flowers for a nephritick colick, scrophulous tumours, and the pleurisy; an extract may be prepared of it to serve during the winter.

2. GALEOPSIS procerior, caliculis aculeatis Inst. 185. Urtica aculeata, foliis ferratis C. B. Pin 232. Cannabis sylvestris quorundam, Urticae inertis affinis J. B. 3. App. 854. Cannabis sylvestris, spuria altera, Lamium quorundam Lob. Icon. 527. *Nettle-hemp, or hemp-leaved dead Nettle. Common in corn fields.*

3. GALEOPSIS altera, caliculis aculeatis, flore flavescente Inst. 185. Urtica aculeata

* Lugd. 1122.

foliis ferratis altera C. B. Pin. 232. Cannabis sylvestris spuria, tertia Lob. Ic. Lamium Cannabinum aculeatum, flore specioso luteo, labiis purpureis Pluk. Phytog. Tab. 41. fig. 4. Vaill. 77. *Hemp-leaved dead Nettle, with a party-coloured flower. This is common amongst the corn in the northern countries.*

4. GALEOPSIS patula fegetum, flore purpurascens Inst. 185. Sideritis arvensis, angustifolia, rubra C. B. Pin. 233. Ladanum fegetum, flore rubro quorundam J. B. 3. 855. Alysson Galeni flore purpureo Tabern. Icon. 541. *Narrow-leaved Allheal or Ironwort. Common amongst the corn.*

TABERNAEMONTANUS's figure is better than that of the *Hist. Lugd.*

5. GALEOPSIS Alpina Betonicae folio, flore variegato Inst. 185. Stachys latifolia major, foliis obscure virentibus, flore galeato, ferrugineo Pluk. Alm. Bot. Phyt. Tab. 317. fig. 4. Pseudo-Stachys Alpina C. B. Pin. 236. & Prod. 113. Salvia Alpina. Tabern. Ic. 372. Vaill. 77.

6. GALEOPSIS palustris, Betonicae foliis, flore variegato Inst. 185. Galeopsis angustifolia, foetida J. B. 3. App. 854. Stachys palustris, foetida C. B. Pin. 236. Stachys aquatica Tabern. Icon. 377.

TABERNAEMONTANUS's figure is better than that of the *Hist. Lugd.* where it is called *Clymenum minus Dalechampi*: Camerarius affirms, that it is found also with a yellow flower;

flower; but I believe it is but very seldom.

CAESALPINUS, who calls it *Tertiola*, says, it cures a *Tertian* ague: this plant contains some *Sal Ammoniac*, joined with a great deal of fetid oil; it's leaves are bitter, stinking, and give hardly any tincture of red to the blue paper. The whole plant is vulnerary and sweetening.

7. GALEOPSIS five *Urtica iners*, flore luteo J. B. 3. 323. *Lamium folio oblongo, luteum* C. B. Pin. 231. *Urtica iners tertia*, five *Lamium luteo flore* Dod. Pempt. 153. *Yellow Archangel or dead Nettle. In bushy and shady places.*

1. GALLIUM album vulgare, Inft. 105. *Mollugo montana, angustifolia, vel Gallium album, latifolium* C. B. Pin. 334. *Gallium album* J. B. 3. 721. *Mollugo vulgatio herbariorum, Gallium album quorundam* Lob. Icon. 802. *White Ladies Bedstraw.*

I SEE no reason why Mr. Ray should believe the *Gallium album* J. B. was the same with the *Gallium palustre, album* Pin. which I have referred to the family of *Cruciata*, because it has but four leaves at each joint, but this has more, and is a true species of *Gallium*.

2. GALLIUM album minus. An *Gallium album minimum* σπανόσπεριον Barr. Ic. N. 57? An *Rubeola minima alba* Mor. Prael. Bot.? An *Rubeola quaedam minor* J. B. 3. lib. 36.

p. 716? *Rubia montana angustifolia* C. B. Pin. 333. Prod. 145. descript. *Gallium album supinum multicaule* Flor. Jenens. p. 4. & Dillen. Plant. post Edit. Catal. observ. p. 3. *Mollugo montana minor*, *Gallio albo similis* Raii II. 482. *Vaill.* 78. *Small, mountain bastard Madder. In marshy and mountainous places.*

3. *GALLIUM luteum* C. B. Pin. 335. *Gallium verum* J. B. 3. 720. *Gallium* Dod. Pempt. 355. *Yellow Ladies Bedstraw, or Cheese Renning.*

THIS plant is vulnerary and deterfive, it is used in *Catalonia* for the epilepsy: some give it after the manner of tea for the gout: The syrup made with the juice of it's flowers is very aperitive and emmenagogick. *Tabernaemontanus* says, that the decoction of it is excellent for the dry scab of young children, provided you bath them often with it.

4. *GALLIUM arvense flore caeruleo* Inft.

5. *GALLIUM album tripetalon* H. R. Bles. 267.

1. *GENISTA tinctoria, Germanica* C. B. Pin. 395. *Tinctorius flos* J. B. 1. 391. *Genista tinctoria* Dod. Pempt. 763. *Green-wood, or Diers-weed, or Wood-waxen. Common in pastures.*

2. *GENISTA ramosa, foliis Hyperici* C. B. Pin. 395. *Genistella pilosa* J. B. 1. 393. *Genista minima* Lugd. 173.

THE figure of the *Hist. Lugd.* represents this plant better than that of the *Chamaegenista* 1. *Clus.* * Nevertheless these plants, as *J. Baubin* believed, are probably the same: *C. Baubin* has separated them, and called that of *Clusius*, *Chamaegenista foliis Genistae vulgaris* *Pin.*

1. GENISTA-SPARTIUM majus, brevioribus & longioribus aculeis *Inst.* 645. *Genista spinosa*, major, brevibus aculeis *C. B. Pin.* 394. *Genistellae spinosae affinis*, *Nepa quibusdam* *J. B.* 1. 400. *Scorpius* 1. *Clus. Hist.* 106. *Furze, Whin or Gorse. Common in sandy and barren places.*

J. BAUHIN had reason to say, that this plant varied according to it's age and the seasons of the year: he might have added too, the countries where it grows; for we often see some plants which are very high, mixed with others, which are lower and flatted to the ground: both of them are set with prickles, sometimes shorter, and sometimes longer, so that we must not separate from it the *Genista spinosa*, major, longioribus aculeis *Pin.*

THE empalement of this is divided into two segments to the very base.

2. GENISTA-SPARTIUM minus *Germanicum* *Inst.* 645. *Genista spinosa*, minor, Ger-

* *Clus. Hist.* 103.

manica C. B. Pin. 395. Genista aculeata, foliosa J. B. I. 399. Genistella Dod. Pempt. 760.

TABERNAEMONTANUS * has given two figures of this plant : but that, which is intitled *Genistella*, is very bad.

3. GENISTA-SPARTIUM minus Anglicum Inft. 645. Genistella minor, Aspalathoides vel Genista spinosa Anglica C. B. Pin. 395. Genistella minor Aspalathoides, Prod. 175. Genista aculeata Ger. fig. 1320. Genistella aculeata Park. fig. 1004. Petit Geneste Fuchf. ch. lxxx. Vaill. 78. *Needle-furze or petty Whin. In moist, heathy grounds.*

It's pods are turned like a §; they are about half an inch long, roundish, tumid, two lines thick: they contain seven black, shining seeds, almost round, which are but an inch in diameter. It differs from the *Anonis spinosa* only in it's leaves not being notched. Vaill.

THE empalement is cut at the edge into five segments.

GENISTELLA herbacea, five Chamaespartium J. B. I. 393. Chamaegenista sagittalis C. B. Pin. 395. Chamaegenista II. Clus. Hist. 104.

THE figure which *Clusius* has given of this plant, is much better than those of *Tragus*,

* Tabern. Ic. 1101, 1102.

Cordus, *Tabernaemontanus*, *Pena* and *Lobel*: the last of these authors, to repair this fault; has made use of *Clusius*'s figure, in his book intitled, *Icones Plantarum*; and *J. Bauhin* has caused one to be copied after this. He has observed, *first*, That the description of the *Genista angulosa Cordi*, did not agree with the figure which *Gesner* had put to it; *secondly*, That *Tabernaemontanus* had caused three sorry figures of it to be engraved, under the name of *Chamaespartium I. II. & Narbonense*.

1. GENTIANA cruciata C. B. Pin. 188. Gentiana minor, seu vulgi Cruciata J. B. 3. 522. Cruciata five Gentiana minor Dod. Pempt. 343.

THE root of this plant is said to be stomachick and febrifugous.

2. GENTIANA angustifolia, autumnalis, major C. B. Pin. 188. Gentiana palustris, angustifolia, ejusdem. Gentianae species Calathiana quibusdam radice perpetua five palustris J. B. 3. 524. *Marsh Gentian or Calathian Violet*. It is found in Lincolnshire and Yorkshire. Mr. Newton found it a quarter of a mile beyond Clapham, in the field going the middle way to Engleton.

THE figure of the *Pneumonanthe Cordi* *, gives no ill representation of this plant: but

* Cord. Hist. 162.

this author says, it's flowers are hairy within; which does not agree with our plant; and it is this which has obliged *C. Bauhin* to make a separate species of it, under the name of *Gentiana angustifolia, autumnalis minor, floribus ad latera pilosis Pin.* *Lobel*, however, has not separated that of *Cordus* from the *Campanula autumnalis Dod.* * though the difference of the flowers seems pretty considerable. *J. Bauhin* has given a very sorry figure of our plant; and they have joined to it the figure of the *Gentiana palustris latifolia, flore punctato Pin.* This author is very angry that *Clusius* and others have not well distinguished the plant of *Cordus*.

3. GENTIANA pratensis, flore lanuginoso *C. B. Pin. 188.* Dwarf Autumnal Gentian or Fell-wort. On chalky hills and dry pastures.

4. GENTIANA annua foliis Centaurii minoris. Gentianella alpina aestiva, Centaureae minoris foliis *C. B. Pin. 188.* Gentianella fugax quinta *Clusii*, flore caeruleo elegantissimo *J. B. 3. 526.*

THE figure of the *Calathiana verna Dalechampii Lugd.* † represents this plant pretty well. That of the *Gentiana minor Tabern.* § is too bushy. *J. Bauhin* has given two sorry figures of it.

* *Dod. Pempt. 168.* † *Lugd. 824.* § *Tabern. Ic. 728.*

1. GERANIUM sanguineum, maximo flore C. B. Pin. 318. Geranium sanguineum, five haematodes, radice crassa J. B. 3. 478. Geranium vii. αἱματώδες Clust. Hist. cii. *Bloody Cranesbill. On the banks of the Devil's ditch.*

THE leaves of this plant are stiptick, and taste a little saltish; they give as deep a tincture of red to the blue paper as Allum: thus it is probable they are vulnerary no otherwise, than by their aluminous salt, which is united with a great deal of sulphur and earth: that does not hinder this plant from having something urinous in it; for by the * chymical analysis is obtained from it, beside several acid and oily liquors, a little concreted volatile salt.

THE roots and leaves of this species of *Geranium* are used in ptisans and broths, which are vulnerary and good to stop either external or internal defluxions.

THIS has only one flower on each pedicle.

2. GERANIUM folio Malvae rotundo C. B. Pin. 318. Geranium folio rotundo, multum ferrato, five Columbinum J. B. 3. 473. Pes Columbinus Dod. Pempt. 61. *Dove's-foot or Dove's-foot Cranesbill.*

THIS is common about Oxford, but not about London or Cambridge. The petals are entire.

* Extract of the registers of the royal academy of sciences.

THIS plant has an herby, saltish, glutinous, stiptick taste, it gives such a red colour to the blue paper as the preceding; in all appearance, by an aluminous salt, which is dissolved in a more glutinous flegm.

THE juice of this species boiled with sugar, is good for the dysentery: it's extract has the same virtue; and it's leaves are used in potions, decoctions, plasters, oils and ointments for wounds and contusions.

3. GERANIUM Columbinum, minus majori flore, & foliis florum bifidis Bot. Monsp.

THIS is common about London and Cambridge, and is, no doubt, the species which Mr. Ray took for the *Geranium folio Malvae rotundo* C. B. which I have never yet found in Cambridgeshire.

4. GERANIUM Columbinum, majus, foliis tenuiter dissectis foliis florum bifidis Bot. Monsp. *Geranium Columbinum tenuius, laciniatum*. C. B. Pin. 318. Prodr. 138. *Dove's-foot Cranesbill, with jagged leaves. Common in hedges.*

M. MAGNOL had reason to say, the description of the *Geranium gruinale, folio tenuiter diviso* J. B. 3. 478. agrees well with this species, except the flowers, the petals of which are cut, which J. Baubin did not observe: but he affirms besides, that it is found in the fields of *Montpelier*; and it was not the custom of the botanists of that age, to examine the plants with so much exactness.

C. Bau-

C. Baubin has called this *Geranium batrachoides*, *collum gruis Germanorum*: he refers to it the *Geranium quartum Fuchsi*, and the *Geranium gruinale* * *Dod.* which he repeats under the *Geranium Robertianum alterum*, and confounds with the *Geranium violaceum* § *Tabern.* M. Herman has taken it for the *Geranium gruinale*, *folio tenuiter diviso* J. B. A species of *Geranium Robertianum*, which has a flower larger and redder than the common one, and the leaves of which are cut smaller; but J. Baubin affirms, the leaves of this, which he describes, are round and more cut than those of the *Pes Columbinus*, which they pretty much resemble.

5. GERANIUM Columbinum majus, foliis imis longis, usque ad pediculum divisis H. Ox. 2. 511. *The greatest Dove's-foot Cranesbill, with dissected leaves. In the woods near Marston in Oxfordshire.*

6. GERANIUM Columbinum majus flore minore caeruleo Raii Hist. 1059. *Geranium Malacoides minus* C. B. Pin. 319. Prod. 138. *The greatest blue-flowered Dove's-foot Cranesbill. In waste places, and on banks.*

THE petals of this are bifid.

7. GERANIUM folio Malvae rotundo, flore majori caeruleo C. B. Pin. 318.

THIS, I suppose, is only a variety of the second.

* *Dod. Gal.* 36.

§ *Tabern. Icon.* 61.

THESE *six have their flowers growing by pairs on a ray or common pedicle.*

8. GERANIUM Cicutae folio minus, & supinum C. B. Pin. 319. Geranium moschatum, folio ad Myrrhidem accedente, minus J. B. 3. 479. Geranium minus, Geranium arvense Tabern. Icon. 57. *Field Cranes-bill without scent. In barren places.*

J. BAUHIN has spoken in the same chapter of this species, and of the great one, which he calls *Geranium moschatum folio ad Myrrhidem accedente majus*; but it is not easy to perceive to which of the two he refers the synonymies of the authors.

THE *flowers of this and those which follow, grow more than two together, and have entire petals.*

9. GERANIUM Cicutae folio, minus & supinum, flore albo C. B. Pin. 319. Geranium arvense, album Tabern. Icon. 57.

10. GERANIUM Robertianum 1. C. B. Pin. 319. Geranium Robertianum, murale J. B. 3. 480. Geranium Robertianum Dod. Pempt. 62. *Herb Robert. In hedges.*

TRAGUS has but a sorry figure of this plant under the name of *Gratia Dei, vel Geranium quibusdam*; he represents the flowers monopetalous, though they are pentapetalous: *Anguillara*, according to C. Bauhin, seems to have made two different species of it; nevertheless *Anguillara* allows that
which

which he names * *Panax Heracleum*, to be the same with what he calls *Sideritis* III. *Tabernaemontanus* has two figures of this plant, that of § *Geranium Rupertianum*, and that of *Geranium violaceum*: it is stiptick, saltish, and a little sourish; and smells of Bitumen, and gives a pretty deep tincture of red to the blue-paper: in all appearance it contains a salt resembling Allum, mixed with a little fetid oil, and a very small quantity of *Sal Ammoniac*.

FOR by the † chymical analysis it yields a great deal of acid, a little oil, no volatile concrete salt, but a little urinous spirit. This *Geranium* is very astringent and vulnerary. An infusion of it's leaves in wine, stops all sorts of hemorrhagies.

II. GERANIUM Robertianum flore albo H. Edinb.

12. GERANIUM lucidum, faxatile C. B. Pin. 318. *Shining or stone Dove's-foot Cranesbill. On old walls and stony places in many parts of England. In a lane between Cambridge and Chesterton.*

THE petals are entire.

GLAUCIUM flore luteo Inst. 254. Papaver corniculatum, luteum J. B. 3. 398. Papaver corniculatum, luteum, *νερανίτης* Dioscoridis, Theophrasti sylvestre Ceratitis Plinio C. B.

* Ang. 94. & 257.

§ Tabern. Icon. 56, & 61.

† Extract of the registers of the royal academy of sciences.

Pin.

Pin. 171. *Papaver corniculatum, majus*
 Dod. Pempt. 448. *Yellow horned Poppy.*
Near the Sea.

DIOSCORIDES says this plant is diuretick; and *Galen* looks upon it to be vulnerary and deterfive: but he considers not that it must be used only to eat away the proud flesh of ulcers. Nevertheless, in *Portugal*, they give the infusion of half a handful of it in white-wine, to those who are subject to the stone. In *Provence* they use the same leaves bruised, for ulcers, and above all, for the wounds of horses.

GLAUX palustris, flore striato clauso, foliis Portulacae Inst. 88. *Water Purslane.* In boggy places.

THE flower is monopetalous, cut into ten or twelve segments, five or six of which are bigger than the rest, and placed alternately. Five or six chives with green summits encompass a pointal, cut like a ballister and surmounted by a little greenish button. It afterwards becomes a fruit, which ripens within the flower, to which it fastens itself very strongly. The fore part of the fruit, which appears at the opening of the flower, is covered with so fine a membrane, that the seeds, which it incloses in great number, appear through. *Vaill.*

GLOBULARIA vulgaris Inst. 467. *Bellis caerulea*, caule folioso C. B. Pin. 262. *Bellis caerulea*, Globularia Monspeliensium Adv.

199. *Aphyllanthes Anguillarae*, five *Globularia Bellidi similis* J. B. 3. 13.

CAMERARIUS has a very good figure of this plant under the name of *Aphyllanthes Anguillarae*. J. Bauhin took it's flower to be a cluster of chives; it is nevertheless dubious. The same author had no reason to blame his brother for separating *Aphyllanthes Lugd.* from this species; for though the *Hist. Lugd.* affirms, that it is the same plant with the *Globularia* of *Pena*, it is certain that his figure of it represents very well another species of *Globularia*, with a naked stalk, which grows upon the *Alps*, towards the great *Carthusian* monastery, as Mr. Ray observed, and which I have found in the *Pyrenees*, upon the mountain of *Lieris*, near *Baigners*, in *la Bigorre*. This plant is scarce, no body has spoken of it but the *Hist. Lugd.* who confounded it with the *Globularia* of *Pena*.

1. GRAMEN loliaceum, spica longiore C. B. Pin. 9. *Lolium gramineum spicatum*, caput tentans J. B. 2. 437. *Lolium* Dod. Pempt. 5. *Darnel*. Amongst the corn.

2. GRAMEN loliaceum, angustiore folio & spica C. B. Pin. 9. *Phoenix Lolio similis* J. B. 2. 436. *Phoenix* five *Lolium murinum* Dod. Pempt. 540. *Red Darnel-Grass*, or *Ray-Grass*. In pastures.

3. GRAMEN loliaceum, corniculatum Inst. 518.

THE roots of this plant creep pretty much: they are intermixed with some knots, half a line thick, reddish and hairy: the stalks arise two foot or two foot and a half in height, hollow, intermixed also with knots, accompanied with some leaves eight or nine inches long, and two or three lines broad: these leaves are pale-green, streaked lengthwise, which renders them a little rough; they are very pointed, pretty firm, and encompass the stalk by a base rowled in form of a pipe: the top of each stalk is terminated by a spike, about five or six inches long, composed of several other spikes, ranged alternately upon a pretty small mid-rib: these small spikes are shaped like a horn, they are an inch long, a little flat, one line broad, pointed at the two ends, composed of several bunches in two rows, crowded one upon another, each of them formed by two or three husks a little hollow, the outermost of which is terminated by a pretty strong thred, one line or a little more in length: these husks are covered with a very fine, short down: the chives push forth amidst the chaff, and sustain each of them a yellowish summit, bending downwards. The embryo of the seed is hid under the outward husk, and afterwards becomes a seed one line and a half long, wrinkled and lean, and often falls into powder, when one goes to separate it from the husk.

It flowers in the summer, and it's seed is ripe in *September*.

THE locusts have no empalement, and their flat is towards the stalk, so that it is a *Gramen caninum*. *Vaill.*

4. GRAMEN loliaceum, foliis & spicis tenuissimis H. Ox. 3. 182. N. 3. Icon. Sect. 8. Tab. 2. N. 3.

THE locusts of this are flat towards the stalk. *Vaill.*

5. GRAMEN minimum, paniculis elegantissimis C. B. Pin. 2. Gramen minimum J. B. 2. 465. Gramen minimum Dalechampii, Lugd. 425.

J. BAUHIN had no reason to separate the *Gramen*, which he calls *minimum*, from that to which *Dalechampi* has given the same name; though the figure in the *Hist. Lugd.* is not good.

THE locusts of this are flat towards the stalk. *Vaill.*

6. GRAMEN caninum arvense, five primum, five Gramen Dioscoridis & officinarum C. B. Theat. 7. Gramen caninum arvense, five Gramen Dioscoridis C. B. Pin. 1. Gramen repens officinarum, forte triticeae spicae aliquatenus simile J. B. 2. 457. Gramen caninum five canarium 1. Tabern. Icon. 201. *Common Dog's-Grass, Quick-Grass, or Couch-Grass. In gardens and hedges.*

TABERNAEMONTANUS has a pretty good figure of this plant: *C. Baubin* made use of it

it in his *Theatrum Botanicum*; but in the *Pinax* he has, without reason, referred the *Gramen* * *Dod.* to it, which is altogether different from it, and seems rather to be a plant ill observed, for one has different heads upon the same plant: neither has *C. Bauhin* rightly quoted the *Hist. Lugd.* for he mentions three sorts of § *Gramen vulgare*, to wit, that of *Matthiolum*, that of *Dodonaeus*, and that of *Dalechampi*: as for the *Graminis primi Dioscoridis species major Thal.* it is almost impossible to know what it is; for *Thal.* contented himself with only naming it. ¶ *Bauhin* has observed, that † *Pena* and *Lobel* had no reason to refer to the figure of *Dodonaeus* and *Matthiolum*, to describe their *Gramen canarium, medicatum officinarum*: *Matthiolum*'s figure seems to be made upon the description of *Dioscorides*, and that of *Dodonaeus* upon some imperfect specimen.

It's roots are of great use in almost all ptisans; it's distilled water is said to kill worms; they are moderately aperitive, and lenifying, and open the bowels without any ill consequence.

By the ** chymical analysis, a great deal of oil, earth, and several acid liquors: also a little fixt, but no volatile salt is obtained

* *Dod. Pempt.* 558. § *Lugd.* 421. † *Adv.* 2.

** Extract of the registers of the royal academy of sciences.

from them; so that probably they act only by a salt analogous to that of Coral, involved in a good quantity of sulphur.

7. GRAMEN angustifolium, spica Tritici muticae simili C. B. Prod. 17.

THIS differs from the preceding by it's leaves, which are narrower, stiffer, and of a paler green, and by it's spike, which is closer. *Juss.* 36.

C. BAUHIN does not speak of the green colour of this plant; which is like that of a Leek. He compares it's leaves to those of a rush; but they are plain, and only rowl themselves up, which makes them seem round. *Vaill.*

8. GRAMEN loliaceum, fibrosa radice, aristis donatum *Inst.* 516. Gramen spicatum secalinum, spica duriore & angustiore *Inst.* 518. Item Gramen spicatum secalinum, altissimum *Inst.* 518. Gramen caninum aristatum radice non repente *H. Ox.* 3. Sect. 8. Tab. 1. fig. 2. *Raii Syn.* 247. (*Ed.* 3. p. 390.) Item Gramen secalinum majus sylvaticum *D. Bobart. R. Syn.* 148. (*Ed.* 3. p. 392.) *Vaill.* Bearded Dog's-grass of the woods not creeping. In *Stoken-church* woods plentifully: about *Croydon*, and near *Settle* in *Yorkshire*. *R. Syn.* I found it last summer (1730) in a bushy close, near little *Eversden-church* in *Cambridgeshire*.

9. GRAMEN sparteum juncifolium C. B. Pin. 5. Spartum parvum *Lobelio J. B.* 2.

513. *Spartum nostras, parvum* Lob. Icon. 90. *Small Matweed. In moist heathy grounds, as on Putney-heath, and the boggy parts of the heath at Gamlingay.*

It flowers in *May*, and the summits are white. *Vaill.*

10. GRAMEN spicatum, durioribus & crassioribus locustis, spica brevi Inst. 529.

11. GRAMEN avenaceum, locustis splendentibus & bicornibus. *Vaill.* 82.

THE six preceding Grasses are ranged, by *M. Vaillant*, under the head of *Gramen triticeum*; the three following are called by him *Gramina secalina*.

12. GRAMEN hordeaceum minus & vulgare C. B. Pin. 9. *Hordeum spontanum, spurium, Holcus Plinii Anguillarae* Lobel. Icon. 30. *Hordeum murinum* J. B. 2. 431. *Wild Rie or Rie-Grass, Wall-Barley, Way-Bennet. By way sides or on walls.*

J. BAUHIN seems to find no great difference between this species, and that which *C. Bauhin* calls *Gramen hordeaceum montanum, sive majus*. *Thalium* is the first who has distinguished them only by the greatness of their stalks and spikes. It's figure in the * *Hist. Lugd.* represents the spike a great deal bigger than that of *Lobel*, and the plant which *Caesalpinus* § observed, ought to be

* Lugd. 427.

§ Caesalp. 185.

very small, for it was but one span high. *Tabernaemontanus*'s * figure represents the spike very slender, and the stalks pretty high: this shews that the plant varies, according to the place where it grows.

13. GRAMEN spicatum, secalinum, minus Inst. 518. Gramen secalinum majus Park. Th. Icon. 1144. Gramen spica quadrata ad Secalen accedens J. B. 2. lib. 18. p. 477. Gramen secalinum, spica longiore & angustiore Barr. Obs. 1174. Zea briza barbata Ejusd. Icon. 111. fig. 2. Vaill. 83. *Meadow, tall Rie-Grass. Common in meadows.*

14. GRAMEN spica secalina C. B. Pin. 9. Prod. 18.

15. Gramen spicatum, spica cylindracea, longioribus villis donata Inst. 520. Gramen phalaroides, majus sive Italicum C. B. Pin. 4. Gramen Alopecuro simile, glabrum, cum pilis longiusculis in spica, Onoscordon mihi denominatum J. B. 2. 475. *The most common Fox-tail grass. In meadows.*

Mr. RAY has observed, that the spike of this species of *Gramen* is too short and thick in § *Lobel*'s figure, who calls it *Gramen phalaroides alterum*; but Mr. Ray had no reason to doubt of it's being the same plant with the *Phalaroides spica molli*, sive *Germanicum* C. B. Pin. That which they call *Onoscordon*

* Icon. 285.

§ Lob. Icon. 8.

at *Ulm*, according to *C. Baubin*, has not the spike garnished with these long hairs, described in the *Onoscordon* of *J. Baubin*.

M. VAILLANT says the two following are not different from this.

16. GRAMEN phalaroides, spica molli, five Germanicum C. B. Pin. 4. Prodr. 10. J. B. 2. 475.

17. GRAMEN pratense, spicâ purpureâ, ex utriculo prodeunte, vel Gramen folio spicam amplexante C. B. Pin. 3. Gramen spicam folio amplexans J. B. 2. 469. Gramen pratense Dalechampii Lugd. 425.

18. GRAMEN aquaticum, geniculatum, spicatum C. B. Pin. 3. Gramen fluviatile, album Tabern. Icon. 216. Gramen aquaticum, spicatum Lob. Icon. 13. *Spiked Flote-Grass. Common in watry places.*

19. GRAMEN cum cauda muris purpurascete J. B. 2. 473. Gramen Alopecuroides spica longa, tenuiore H. Ox. 3. Sect. 8. Tab. 4. fig. 12. *Vaill. 83. The greater Mouse-tail Grass. Common amongst the corn.*

20. GRAMEN typhoides, maximum, spicâ longissima C. B. Pin. 4. Prodr. 10. Gramen cum caudâ muris majoris longâ, majus J. B. 2. 472. *The greatest Cat's-tail-Grass. In wet places.*

J. BAUHIN was in the right when he said, that the spike of this species feels smooth if one stroaks it upwards; but rough if one stroaks it downwards. *C. Baubin*, who in all appear-

appearance had stroaked it upwards, says only that it is soft. But, however, he has taken care to engrave the two little horns of the chaff, which render it rough; and I do not see why Mr. Ray has separated this species from that of *J. Bauhin*. This last allows his not to be different from that of which his brother has spoken: he questions also (but without reason) whether it is the same with the *Gramen typhoides, asperum alterum C. B. Pin. 4.* It is true their principal difference is in their size; but these two species upon being cultivated in the royal garden, are not become like each other. It seems rather that the *Gramen typhoides asperum C. B.* and the *Typhoides asperum alterum* differ but very little. Mr. Ray suspects the *Typhoides maximum, spicâ longissimâ C. B. Pin.* is the same with the *Gramen Alopecuro simile, glabrum, cum pilis longiusculis in spica, Onoscordon mihi denominatum J. B.*; for my part I find them very different. Mr. Ray affirms also, that *J. Bauhin* believed that his *Gramen cum caudâ muris majoris longâ, majus,* was the same with the *Typhoides asperum, primum C. B. Pin.* but it is likely Mr. Ray took this for the *Typhoides asperum alterum C. B. Pin.*

21. GRAMEN typhoides, asperum, primum C. B. Pin. 4. Gramen cum caudâ muris, minus J. B. 2. 471. Gramen typhinum U 3 1. Tabern.

1. Tabern. Icon. 217. *The lesser Cat's-tail-Grass. In meadows.*

J. BAUHIN affirms, that this species of *Gramen* is the same with the *Typhoides asperum, primum* C. B. Pin. and not with the *Typhoides asperum alterum*, as Mr. Ray believed.

22. GRAMEN nodosum, spicâ parva, five nodosum tertium C. B. Pin. 3. *Gramen nodosum, spicâ parva, Prodr.* 3. *Gramen cum parva cauda muris, radice nodosa, repens* J. B. 2.

Mr. RAY has observed that J. Bauhin had confounded this plant with the *Gramen aquaticum, spicatum* Lob. Icon. 13.

23. GRAMEN spicatum, locustis echinatis Inst. 519. *Gramen caninum marimum spica echinata* Phytop. 4. desc. *Gramen caninum supinum Monspeliense* H. Ox. 3. Sect. 8. Tab. 1. fig. 9. *Vaill.* 84.

24. GRAMEN pratense, cristatum, five *Gramen spicâ cristatâ, laeve* C. B. Pin. 3. *Gramen cristatum* C. B. Prodr. 8. J. B. 2. 468. *Gramen cristatum, Anglicum* Park. Theat. 1150. *Crested Grass. In meadows.*

THE figure which * Lobel has given of this plant under the name of *Gramen cristatum* C. B. is the best.

25. GRAMEN spicatum glumis variis Inst. 519. *Gramen versicolor* J. B. 2. lib. 18.

* Adv. part. 2. 467.

pag. 466. quoad descript. Gramen parvum, montanum spica crassiore purpureo-caerulea brevi Raii Syn. 253. (Ed. 3. p. 399.) & Hist. 3. 603. Item Gramen spicatum, montanum, asperum Raii Syn. 252. Vaill. 84. *Small mountain, spiked grass, with a thick, short, blue spike. This was sent Mr. Petiver out of the North. R. Syn.*

26. GRAMEN spica cristata, subhirsutum C. B. Pin. 3. Prod. 8. *Dwarf Fox-tail-Grass, with a purplish silver-coloured spike. Observed on Black-heath by Mr. Petiver.*

27. GRAMEN parvum praecox spica laxa canescente Raii Cat. Ang. 150. Pluk. Phyt. Tab. 33. fig. 9. Vaill. 84. *In gravelly places.*

28. GRAMEN spicatum Junci facie, Lithospermi femine Inft. 518. Juncus Lithospermi femine Mor. H. R. Bles. Juncus femine Lithospermi H. R. Par. Juncus palustris, panicula glomerata, ex rubro nigricante Raii Cat. Cant. *Round, black-headed Marsh-Rush or Bog-Rush. On Hinton and Teversham-moors abundantly.*

Mr. RAY has quoted, through mistake, C. B. instead of C. C. in his history. M. Magnol has given the figure and description of this plant; but he allows that it is named in the H. R. Bles. so that Mr. Ray * had no

* Hist. 1305.

reason to say that M. *Magnol* has given it for a non-descript.

29. GRAMEN pratense, spicâ flavescente C. B. Pin. 3. Gramen anthoxanthon, spicatum J. B. 2. 466. Gramen anthoxanthon Dalechampii Lugd. 426. *Vernal Grass, with a loose, yellowish spike. Common in meadows and pastures.*

30. GRAMEN sparteum pennatum C. B. Pin. 5. Gramen pennatum, aliis spartum J. B. 2. 512. Spartum Austriacum, pennatum Clus. Hist. ccxxi. *Found by Dr. Richardson, in company with Tho. Lawson, on the Lime-stone rocks, hanging over a little valley, called Long-Sleadale, about six miles north of Kendale in Westmoreland. R. Syn. Ed. 3. p. 393.*

IF *Dodonaeus* * intended to speak of this plant under the name of *Gramen* 9. he has certainly described it ill. The author of the *Hist. Lugd.* § has given a pretty good figure of it; but he was mistaken, when he affirmed that it does not flower. *C. Bauhin* says, it's feathers are sometimes white, and sometimes yellow. I have never seen any yellow, except those which the peasants of *Provence* dip in quick lime, to make feathers for their hats.

It flowers in *May* and *June*. *Vaill.*

* Dod. Pempt. 562.

§ Lugd. 431.

31. GRAMEN avenaceum montanum, spica simplici aristis recurvis Raii Syn. Ed. 3. p. 405. Found by Mr. Dale upon Bartlow hills in Essex, on the edge of Cambridgeshire, and between Newmarket and Exning, in the borders of the corn fields. On the chalk hills between Northfleet and Gravesend. D. Dillenius. Ibid.

32. GRAMEN spicatum, angustifolium, montanum C. B. Pin. 4. Prod. 8.

33. GRAMEN legitimum Clus. Hist. ccxvii. Gramen dactylon, folio arundinaceo, majus, aculeatum forte Plinio C. B. Pin. 7. Gramen repens cum panicula Graminis Mannae J. B. 2. 459. Creeping Cock's-foot-Grass. Found by Mr. Newton on the sandy shores between Pensans and Marketjeu in Cornwall plentifully. R. Syn. Ed. 3. p. 399.

THE figure of the *Securidaca dumetorum* is put in the room of this grass in J. Baubin's history. Anguillara said very truly, that it is common throughout all Italy; and Clusius, throughout all Spain and France; for the roots of it are used in all the warm countries.

THOUGH the spikes of this grass have two rows of seeds, they are disposed so as to seem but one. Each seed is shaped like the head of a pike, and fastened between two chaffs, like horns. Vaill.

34. GRAMEN dactylon angustifolium spicis, villosis C. B. Pin.

35. GRA-

35. GRAMEN dactylon, folio latiore C. B. Pin. 8. Graminis genus, Dens canis tertius, five Gramen primum, vel Galli crus J. B. 2. 444. Ischaemum, Gramen sanguinarium I. Tabern. Icon. 222. *Cock's-foot-Grass*.

J. BAUHIN believes justly, that this differs only by culture, from what *C. Bauhin* calls, *Gramen dactylon, esculentum* Pin. but as for the *Gramen album, capitulis aculeatis Italicum* Pin. *J. Bauhin* is wrong in supposing it to be the same plant with this. *J. Bauhin* seems only to have proposed it in this place as a doubt; for he gives it's figure separately in the 461 page, under the name of *Gramen supinum, aculeatum*. *J. Bauhin* was still more in the wrong in blaming *Clusius* for confounding our *Gramen dactylon* with *Panicum sylvestre Matthioli*: it seems rather, that *Clusius* intended to shew, that what *Pliny* said of the *Ischaemon*, agreed with the *Paniculum sylvestre Matthioli*.

36. GRAMEN dactylon folio latiore spicis nigris disjunctis. An Panici effigie, Gramen tertium Lob. Icon. 14. Gramen Paniceum spicis nigris C. B. Pin. 8. N. 5. *Vaill.* 85.

37. GRAMEN sylvaticum, panicula miliacea, sparsa C. B. Pin. 8. Miliaceum Gramen Lob. Icon. 3. *Millet-Grass*. In woody places.

38. GRAMEN segetum, panicula arundinacea C. B. Pin. 3. Gramen agrorum Lobelii J. B. 2. 461. Agrorum venti spica, & Gramen

men agrorum latiore, arundinacea, comosa panicula Lob. Icon. 3. *Amongst the corn, but not very common.*

Mr. RAY * makes a good deal of confusion in his description. He describes the panicle of the *Gramen capillatum*, and the leaves of this, which he calls *Gramen segetum panicula speciosa Park.*

39. GRAMEN caninum supinum minus C. B. Pin. 1. Gramen parvum repens, purpurea spica J. B. 2. lib. xviii. desc. Gramen Calamagrostis Lobelii J. B. quoad Icon. Tom. 2. lib. xviii. pag. 480. *Vaill.* 86.

RAY and *Tournefort* call this *Gramen pratense, vulgare, spica fere arundinacea J. B.* 2. 461. Its locusts are simple, consisting of two chaffs, and three chives, with whitish summits. The embryo of the seed is surmounted by a pair of fringed horns. *Morison* * has given a sorry figure of it under the name of *Gramen paniculatum, panicula spadicea, delicatiore C. B. Ibid.*

40. GRAMEN caninum supinum paniculatum, folio varians C. B. Pin. 1. Graminis primi Dioscoridis species minima Thalii J. B. 2. lib. xviii. 459. desc. Item Gramen capitulo globofo foliaceo 15. *Hist. Ox.* 3. 200.

41. GRAMEN montanum, panicula spadicea, delicatiore C. B. Pin. 2. Prodr. 6.

* *Hist.* 1283.

§ *Hist. Ox.* 3. Sect. 8. Tab. 5. fig. 3.

42. GRAMEN pratense, paniculatum, molle C. B. Pin. 2. Prodr. 5. Gramen lanatum Dalechampii Lugd. 425. J. B. 2. 466. *Soft-tufted Meadow-Grass.*

J. BAUHIN's figure of this plant seems to be better than that which is in his brother's *Prodromus*.

43. GRAMEN caninum longius radicum majus C. B. Pin. 1. Gramen canarium, longius radicum latiore panicula Adv. part. 2. 467. J. B. 2. 427. *In corn fields. It flowers in June.*

44. GRAMEN arundinaceum, acerosa glumâ, nostras Park. Theat. 1273. *Great Reed-grass with chaffy heads.*

45. GRAMEN junceum Dalechampii Lugd. Gramen avenaceum, altero alteri innatum Park. Th. Icon. 1150. Gramen junceum Dalechampii Park. Th. Icon 1189. Oxy-schoenos five Juncus acutus minor Park. Th. 1192. fig. 1193. Oxyagrostis pumila, five Calamagrostis Iberiae acuta Lob. Illustr. 32. Oxyagrostis pumila Hispanica Park. Theatr. 1187. *Vaill.* 88.

46. GRAMEN avenaceum locustis rarioribus C. B. Pin. 10. N. 3. Gramen avenaceum, rariore grano, nemorense, Danicum Lob. Adv. 465. cum fig. Gramen avenaceum, spica mutica, rariore gluma H. Ox. 3. Sect. 8. Tab. 7. fig. 49. Item Gramen montanum, avenaceum, locustis rubris 2. C. B. Pin. 10. Prodr. 20. N. 71. cum fig. Gramen avenaceum,

ceum, sylvaticum Park. Th. 1152. Gramen avenaceum locustis rubris Ejusd. ibid. Gramen avenaceum rariore gluma spicatum Ejusd. ibid. 1151. *Vaill.* 88. *On shady banks, but not very common. Mr. Newton observed it in a hedge between Highgate and Hamstead, on the left hand. I have found it in the wood adjoining to Oak of honour hill: and in the road to Cambridge, a little on this side Puckeridge.*

47. GRAMEN serotinum, arvense, spica laxa pyramidali Raii Hist. 2. 1288. Gramen serotinum, arvense, panicula contractiore, pyramidali Raii synopsis. 259. (*Ed. 3. p. 394.*) Panicum serotinum, arvense, spica pyramidata Inst. 515. Gramen Alopecuro accedens, ex culmi geniculis spicas cum petiolis longiusculis promens Pluk. Phytogr. Tab. 33. fig. 6. *Vaill.* *Amongst corn, but rarely.*

48. GRAMEN capillatum paniculis rubentibus J. B. 2. 462. Gramen segetum altissimum, paniculâ sparsa C. B. Pin. 3. Segetum Gramen, paniculâ sparsa latiore Lob. Icon. 2. *Fair-panicled Corn-grass or Bent-grass.*

J. BAUHIN's figure of this plant is not so good as that of *Lobel*.

49. GRAMEN capillatum, paniculis viridantibus J. B. 2. 462.

THIS has greenish panicles, and usually less sparsed and more narrow than those of the preceding: *J. Bauhin* names this plant *Gramen capillatum*, because the chaff of it's spikes

spikes is terminated by little threds, as fine as a hair.

50. GRAMEN paniculatum minimum molle Bot. Monsp. Gramen paniculatum, locustis parvis, purpuro-argenteis annum Raii Itin. Alpin. 2. pag. 61. Tab. 18. fig. 2. Gramen paniculatum argenteum, locustis parvis annum H. Ox. 3. Sect. 8. Tab. 5. fig. 11. & Gramen paniculatum molle Ejusd. Hist. 202. N. 36. Vaill. 88. *Small, annual, fair-panicked grass. In gravelly and barren places.*

51. GRAMEN nemorosum, paniculis albis, capillaceo folio C. B. Pin. 7. Prodr. 14. Theat. 97. J. B. 2. 496. *Perennial fair-panicked grass. Mr. Bobart observed it on a heath near Oxford, in a gravelly soil.*

52. GRAMEN avenaceum, pratense, elatius, panicula flavescente, locustis parvis Raii Hist. 1284. *Common in meadows.*

53. GRAMEN avenaceum, elatius, juba longa, splendente Raii Synopf. 260. Ed. 3. *It is found in hedges about London.*

54. GRAMEN nodosum, avenaceâ panicula C. B. Pin. 2. Prodr. 3. Gramen nodosum J. B. 3. 456. *Knotty-rooted Dog's-grass. Common near hedges.*

THIS plant is well enough engraved in *C. Baubin's Prodromus*, and in *J. Baubin's* history: *Pena* and *Lobel* have a very sorry figure of it.

55 GRAMEN avenaceum, panicula purpuro-argentea splendente Raii Hist. Vaill. 89.

IN the pastures about the Earl of Cardigan's house at *Twittenham* in *Middlesex*. On the chalky hills between *Northfleet* and *Gravesend* in *June*, Dr. *Dillenius*. *Syn. Ed.* 3. p. 406.

56. GRAMEN avenaceum parvum procumbens paniculis non aristatis Raii Cat. Angl. 139. Hist. 1288. *In pastures*.

57. GRAMEN paniculatum aquaticum, miliaceum Inst. 521. Gramen miliaceum aquaticum Raii Syn. 255. (Ed. 3. p. 402.) Gramen miliaceum fluitans suavis saporis D. Merret. Ejusd. ibid. Gramen caninum supinum paniculatum dulce C. B. Pin. J. B. Gramen dulce udorum Lob. Illustr. 10. *Vaill.* 89. *In watery places in May*.

58. GRAMEN arundinaceum, enode minus sylvaticum C. B. Theat. 98. Gramen arundinaceum enode J. B. 2. 481. Gramen arundinaceum, montanum Tabern. Icon. 231. *In moist meadows in July*.

TABERNAEMONTANUS and *Tragus* have given pretty good figures of this plant: it varies, with regard to it's panicles, which are more or less sparfed. It is not easy to know whether *Thalium* has spoken of it under the name of *Funcus Lychnanthemos, major*, as *C. Bauhin* supposes.

59. GRAMEN pratense, paniculatum, majus, latiore folio πόν Theophrasti C. B. Pin. 2. Gramen pratense, vulgare, spicâ fere arundinacea J. B. 2. 461. Gramen pratense

tenſe 1. Dod. Pempt. 560. *Great Meadow-graſs, with a reed-like panicle.*

Mr. RAY ſeparates *J. Bauhin's* ſpecies from that of the Pinax; though *J. Bauhin* allows them to be the ſame: I do not find the direct name quoted by Mr. Ray, viz. *Gramen pratense, paniculâ fere arundinaceâ J. B.* There is an error in the figure of the *Gramen vulgo cognitum Tragi*, which represents two different ſorts of ſpikes.

60. GRAMEN pratense, paniculatum, majus, angustiore folio C. B. Prodr. 5. J. B. 2. 461. Bobart ſays, it is common about Oxford.

61. GRAMEN pratense, paniculatum, minus, album C. B. Pin. 3. Gramen paniculatum, minus album Tabern. Icon. 206. J. B. 2. 465.

62. GRAMEN pratense, paniculatum, medium C. B. Pin. 2. Gramen paniculatum minus J. B. 2. 542. Gramen pratense 2. Dod. Pempt. 560. *The middle ſort of Meadow graſs. In paſtures.*

63. GRAMEN paniculatum radice repente culmo compreffo. Gramen caninum vineale C. B. Pin. 1. Prodr. 1. J. B. 2. lib. xviii. p. 458. *Vaill. 91.*

It is the *Gramen paniculatum, minus, radice repente, panicula duriore Inſt. 521.* But we muſt retrench all the other names which *M. Tournefort* has improperly referred to it, and belong to the 128th of the Inſtitutions.

64. GRA-

64. GRAMEN arvense paniculâ crispâ C. B.
Pin. 3. Gramen cum paniculâ molli, rubente
J. B. 2. 464.

THE best figure we have of this plant is that of C. * *Baubin*; he supposes it to be the *Gramen* spoken of by *Matthiolum*, whose root seems to have been made after the description of *Dioscorides*. C. *Baubin* observes again, that this species is engraved in three places of the *Hist. Lugd.* 1. under the name of *Gramen vulgare Matthioli*: 2. under that of *Gramen bulbosum Dalechampii*, whose figure is much better: 3. under the name of *Gramen minimum*. M. *Magnol* says, they call it at *Montpelier*, *Gramen Cepaceum*: C. *Baubin* compares it's root to that of *Shalots*: I am of opinion it ought to be called *Gramen paniculatum, proliferum*; for it's head is only a mass of several very small bulbs, which push forth small, red, or green leaves, usually taken for the flowers. *Lobel* § calls it *Gramen Xerampelinum exile, Narbonense, etiamque Anglo-Britannicum, aut Belgicum*; but tho' he has described the panicles carefully enough, he has not spoken of these bulbs: there are some of the same nature observed along the spike of the *little Bistort* of the *Alps*, and upon some other plants.

65. GRAMEN Xerampelinum, miliaceâ, praetenui, ramosâque sparsâ paniculâ, five

* Theatr. 33. Prodr. 6.

§ Illustr. 18.

Xerampelino congener arvense, aestivum, Gramen minutissimo femine Lob. Illustr. 14.

66. GRAMEN spicatum, folio aspero C. B. Pin. 3. Prodr. 9. Gramen asperum J. B. 2. 467. Gramen spicatum Dalechampii Lugd. 427.

THIS plant appears not to be well named; for it's heads have not over much the figure of a spike: and besides it's leaves are no rougher than several other species of *Gramen*. The figure of the author of the *Hist. Lugd.* is very bad: that of *J. Baubin* is not over good; we must make use of that in *C. Baubin's Prodrum*.

67. GRAMEN aquaticum, paniculatum, latifolium C. B. Pin. 3. Gramen majus, aquaticum Lobelii J. B. 2. 481. Gramen harundinaceum, paniculatum Tabern. Icon. 211. *Great water Reed-grass*.

J. BAUHIN has the figure of the *Potamogeton* with round leaves, in his history of plants, instead of that of the *Gramen majus, aquaticum Lobelii*.

68. GRAMEN pratense, paniculâ duriore, laxâ unam partem spectante Raii Hist. 1284. *Meadow-grass, with harder sparsed panicles*.

69. GRAMEN aquaticum, fluitans, multiplici spicâ C. B. Pin. 3. Gramen aquaticum, cum longissimâ paniculâ J. B. 2. 490. Gramen fluviatile Tabern. Icon. 216. *Flote-grass*.

70. GRAMEN capillatum, locustis pennatis, non aristatis Raii Syn. 260. (Ed. 3. 410.) Pluk.

Pluk. Phyt. Tab. 34. fig. 2. Vaill. 92. In dry pastures.

M. TOURNEFORT points out the *Gramen spica Brizae minus* C. B. instead of this in his *Hist. Par. Vaill.*

71. GRAMEN paniculis elegantissimis, five *ἑαγρον* majus C. B. Pin. 2. Gramen amoris dictum J. B. 2. 470. Gramen paniculatum fativum, Heragrostis Tabern. Icon. 304.

THE seeds are spherical, very small, and of a reddish brown colour. Vaill.

72. GRAMEN paniculis elegantissimis, minimum Inst. 522.

73. GRAMEN panicula multiplici C. B. Pin. 3. *Small hard Grass. On walls.*

74. GRAMEN tremulum, majus C. B. Pin. 2. Gramen tremulum J. B. 2. 469. Gramen leporinum, Gramen tremulum Tabern. Icon. 231. *Quaking-grass, Cow-quakes, and in some places, Ladies-hair. Common in pastures.*

* CLUSIUS's figure is naught, as is that of the *Hist. Lugd.* where this plant is called *Gramen polyanthes, Ægylops Plinii* 428.

75. GRAMEN tremulum minus, paniculâ parvâ C. B. Pin. 2. Prodr. 4. Gramen tremulum minus J. B. 2. 470.

Dr. SHERARD first found it in *Fersey*, afterwards in many meadows in *France*. R. Syn. Ed. 3. 412.

* Hist. ccxviii.

76. GRAMEN avenaceum panicula sparsa, locustis majoribus & aristatis Inft. 526. Festuca avenacea, sterilis, elatior C. B. Pin. 9. Aegylops Matthioli forte J. B. 2. 439. Bromos herba Dod. Pempt. 540. *Great wild Oat-grass, or Drank. Common in hedges.*

DODONAEUS's figure is very good.

77. GRAMEN festucae, sterile humilius. Festuca graminea, sterilis, humilior C. B. Pin. 10. Lolium quintum Trago, Hordei genus aristis non admodum multis J. B. 2. 436.

78. GRAMEN avenaceum dumetorum, panicula sparsa Raii Hist. 1289. *Bush or wood Oat-grass, with a sparsed panicle. In woods and thickets.*

79. GRAMEN avenaceum, glabrum panicula e spicis strigosis composita, aristis tenuissimis Raii Hist. 1909. *In July. Vaill. 93.*

Mr. DOODY observed it at *Fulham*, near *London*: and Mr. *Dale* at *Bocking* in *Essex*, by the river side, near the Fulling-mill. *Raii Syn. Ed. 3. 415.*

80. GRAMEN murorum Dalechampii Lugd. 428. Festuca graminea, glumis glabris C. B. Pin. 9. Gramen gros Montbelgard J. B. 2. 408. *Oat-grass with smooth spikes. In meadows.*

THE figures of *J. Baubin* and the *Hist. Lugd.* are better than those of *Tabernaemontanus*, *Dodonaeus*, *Lobel* and *Tragus*.

81. GRAMEN spicâ hirsuta, ad Gramen du gros accedens, J. B. 3. 438. Festuca graminea, glumis hirsutis C. B. Pin. 9.

THIS species differs no otherwise from the preceding, than in it's spikes being hairy.

82. GRAMEN avenaceum minus, foliis inferioribus capillaceis, superioribus vero latioribus Inst. 525.

83. GRAMEN pratense, panicula duriore, laxa, unam partem spectante Raii Hist. 1284. *Common in pastures about the latter end of May.*

84. GRAMEN paniculatum, bromoides minus, paniculis aristatis unam partem spectantibus Raii. Vaill. 94. *Small paniced Oat-grass, with awns. On walls, and barren and dry places.*

85. GRAMEN murorum, spicis pendulis, angustioribus. Gramini murali Dalechampii simile, si non idem J. B. 2. 428. *Capon's-tail-grass.*

THE spikes of this species hang a little downwards; they are hairy, soft, and more slender than those of the *Gramen gros*. The figure of the *Festuca altera* Dod. represents them not amiss; and I believe that C. Bauhin ought to have separated it from the *Gramen murorum Dalechampii*.

86. GRAMEN festucae, effusâ juba. Festuca graminea effusâ jubâ C. B. Pin. 9. Prodr. J. B. 2. 479.

GRATIOLA Centauroides C. B. Pin. 279.
 Gratiola J. B. 2. 484. Dod. Pempt. 362.

* CORDUS took the flower of this plant to be tetrapetalous, though it is monopetalous; we must refer to it the *Gratia Dei Caesalp.* and not the *Gratia Dei altera* § *Caesalp.* as one sees in the *Pinax*.

THE *Gratiola* being analysed, yields no volatile salt; but a great deal of acid, oil and earth: *Pena* and *Lobel* affirm, it purges strongly both upwards and downwards; for which reason it is prescribed to those that have the dropfy, cachexy, tertian or quartan ague, or are subject to the gout and sciatica. *Camerarius* says, that it's extract should be mixed with the powder of Cinnamon in the dropfy, and that the juice of *Calamint* should be added to it for intermitting fevers, one dram of the *Gratiola* is given in substance, and the like quantity of the infusion in white-wine; they infuse half a handful of it's leaves, and two ounces of Manna in a gallon of water; let it give one boil, and strain the infusion through a cloth, and give it to drink warm.

I. GROSSULARIA simplicis acino, vel spinosa sylvestris C. B. Pin. 455. Uva crispa sive Grossularia J. B. 1. 47. Uva crispa Dod. Pempt. 478. *The Gooseberry-bush. On the walls of old churches in many places.*

* Cord. Hist. 86. § Caesalp. 265.

2. GROSSULARIA non spinosa, fructu nigro, majore C. B. Pin. 455. Ribes nigrum vulgo dictum, folio olente J. B. 2. 98. Ribesium fructu nigro Dod. Pempt. 749. *Black Currants, Squinancy-berries.* In an island between Bourn-bridge and Abington, a little above the sluice.

By river sides, as at Abington in Cambridgeshire, Blunham in Bedfordshire, in Warwickshire, and in Cumberland, by the Stoppet-bridge near Braintree. R. Syn. Ed. 3. 456.

3. GROSSULARIA multiplici acino, five non spinosa, hortensis, rubra, five Ribes officinarum C. B. Pin. Vaill. 95. *Red Currants.* It is said to grow in the northern part of Yorkshire, in the bishoprick of Durham and Westmoreland. It is found in Wimbleton-park, with a very small fruit, and called, by Merret, Ribes fructu parvo.

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